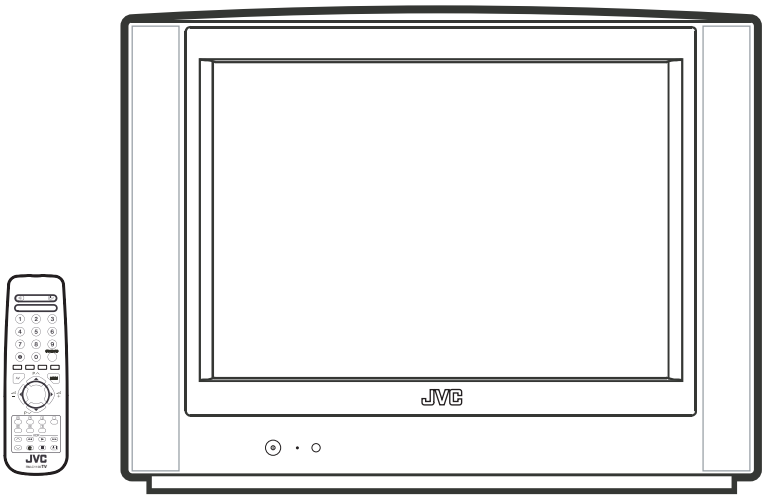
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-28KT1SUF/D



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No.52137D
2006/7

SPECIFICATION

Item		Content
Dimensions (W × H × D)		76cm × 57cm × 47.3cm
Mass		34kg
TV RF System		B/G, D/K, I, L/L'
Colour System	TV Mode	PAL / SECAM
	Video Mode	PAL / SECAM / NTSC 3.58 / NTSC 4.43
Sound System		A2 (B/G, D/K), NICAM (B/G, D/K, I, L/L')
Teletext System		Fastext / TOP
Tuning System		Frequency synthesizer tuning system
Receiving Frequency	VHF(VL) VHF(VH) UHF CATV	46.25MHz - 168.25MHz 175.25MHz - 463.25MHz 471.25MHz - 863.25MHz S01 - S41
Intermediate Frequency	VIF SIF	38.9MHz (B/G, D/K, L) / 33.9MHz (L') 33.4MHz (5.5MHz:B/G) / 32.9MHz (6.0MHz:I) / 32.4MHz (6.5MHz:D/K, L) / 40.4MHz (6.5MHz:L')
Colour Sub Carrier Frequency	PAL SECAM NTSC	4.43MHz 4.40625MHz / 4.43MHz 3.58MHz / 4.43MHz
Power Input		AC220V - AC240V, 50Hz
Power Consumption		105W (Max) / 3W (Standby)
Aerial Input Terminal		75Ω unbalanced, coaxial
Picture Tube Size		Visible size : 66cm (28")
High Voltage		30.0kV (at zero bean current)
Speaker		5.5cm × 16cm, Oval type × 2
Audio Output		10W + 10W (THD10%)
EXT-1 Input / Output		21-pin Euro connector (SCRAT socket) × 1
EXT-2 Input / Output		21-pin Euro connector (SCRAT socket) × 1
EXT-3 Input	Video Audio (L/R)	1V(p-p) 75Ω, RCA pin jack × 1 500mV(rms) (-4dBs), High Impedance, RCA pin jack × 2
Headphone Jack		Stereo mini jack 3.5mm
Remote Control Unit		RM-C1100 (AA/R06 dry battery × 2)

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

Please refer to "AV-28KT1SUF/A (No.52137)" about this section.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

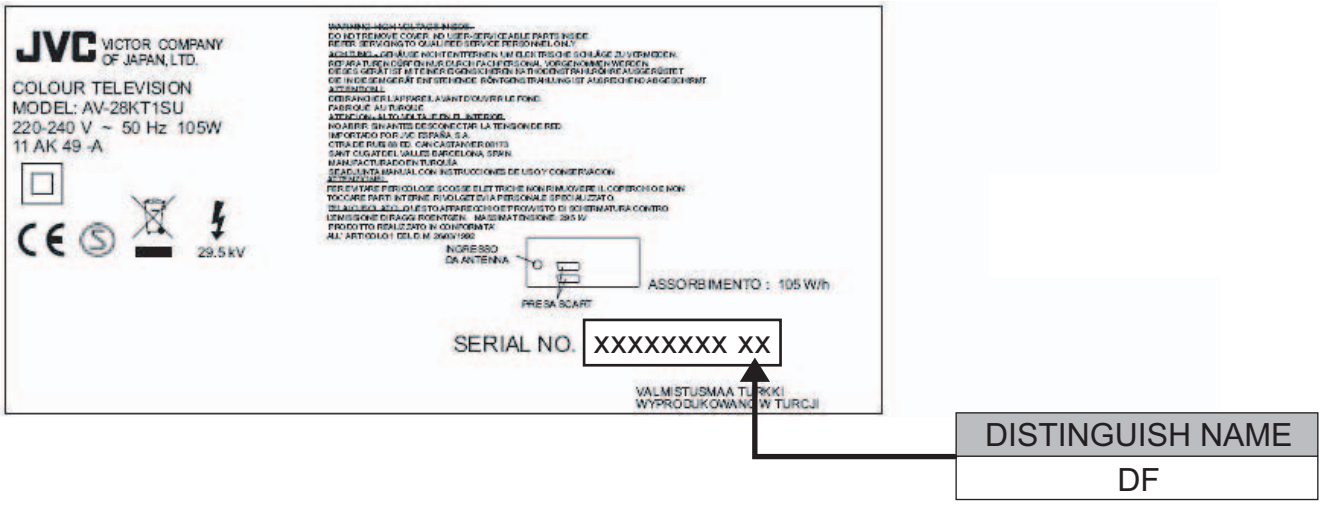
Please refer to "AV-28KT1SUF/A (No.52137)" about this section except a written item.

2.1 Supplementary

AV-28KT1SUF/D is the models whose picture tube and some PWB were changed based on AV-28KT1SUF/A.
Therefore, this service manual describes only the items which differ from those of the AV-28KT1SUF/A service manual.
For details other than those described in this manual, please refer to the AV-28KT1SUF/A service manual(No.52137, 2003/10).

2.2 HOW TO IDENTIFY NEW MODEL

"Distinguish name" is added at the bottom of the Rating label.



2.3 DIFFERENCE LIST

SPECIFICATION

Item	Contents	
	AV-28KT1SUF/A	AV-28KT1SUF/D
Mass	33kg	34kg
Power Consumption	120W(Max) 3W(Standby)	105W(Max) 3W(Standby)

USING P.W.BOARD

P.W.B ASS'Y Name	AV-28KT1SUF/A	AV-28KT1SUF/D	DESCRIPTION
MAIN P.W.B	VE-20120604	VE-20265027	
CRT SOCKET P.W.B	VE-20121506	VE-20247134	
SIDE CONTROL P.W.B	VE-20120893	VE-20209390	
LED P.W.B	VE-20129110	VE-20209387	
POWER SW P.W.B	VE-20122229	VE-20209413	

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

(1) Unplug the power cord.
(2) Remove the 10 screws **[A]**.
(3) Remove the 4 screws **[B]**.
(4) Withdraw the REAR COVER toward you.

3.1.2 REMOVING THE BACK DOOR

- Remove the REAR COVER
  (1) Remove the 2 screws **[C]**.
  (2) Withdraw the BACK DOOR toward you.

3.1.3 REMOVING THE MAIN PWB

- Remove the REAR COVER.
- Remove the BACK DOOR.
  (1) Remove the 6 screws **[D]**.
  (2) Remove the MAIN PWB.

CAUTION:
If necessary, take off the wire clamp, connectors etc. Be careful enough when developing the MAIN PWB.

3.1.4 REMOVING THE SIDE CONTROL PWB

- Remove the REAR COVER.
  (1) Remove the 4 screws **[E]**.
  (2) Remove the SIDE CONTROL PWB.

3.1.5 REMOVING THE SPEAKER

- Remove the REAR COVER.
  (1) Remove the 4 screws **[F]**.
  (2) Remove the SPEAKER.
  (3) Remove the other hand SPEAKER in the same steps.

3.1.6 REMOVING THE BASE

- Remove the REAR COVER.
  (1) Remove the 2 screws **[G]**.
  (2) Remove the BASE.

NOTE:
Work after fixing so that the CRT screen may be placed upside down or it may not fall.

3.1.7 REMOVING THE POWER SW PWB

- Remove the REAR COVER.
- Remove the BASE.
  (1) Remove the 2 screws **[H]**.
  (2) Remove the POWER SW PWB.

3.1.8 REMOVING THE LED PWB

- Remove the REAR COVER.
- Remove the BASE.
- Remove the POWER SW PWB.
  (1) Remove the 2 screws **[J]**.
  (2) Remove the LED PWB.

3.1.9 CHECKING THE PW BOARD

- To check the back side of the PW Board.
  (1) Pull out the PW Board. (Refer to REMOVING THE MAIN PWB).
  (2) Erect the PW Board vertically so that you can easily check the back side of the PW Board.

CAUTION:
- When erecting the PW Board, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.

3.1.10 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

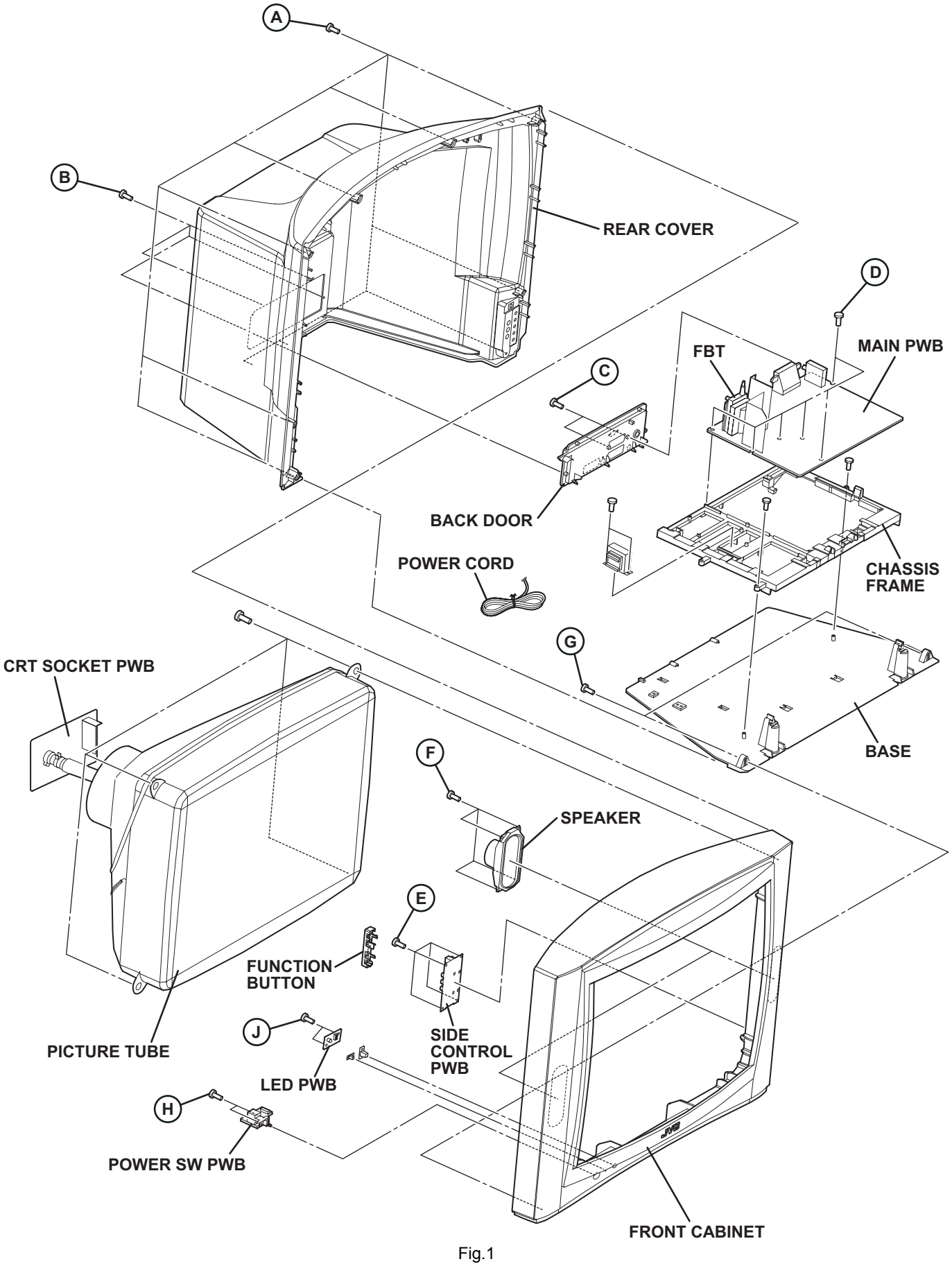

A
B
REAR COVER
D
MAIN PWB
FBT
C
BACK DOOR
POWER CORD
CHASSIS
FRAME
G
BASE
CRT SOCKET PWB
F
SPEAKER
E
FUNCTION
BUTTON
SIDE
CONTROL
PWB
PICTURE TUBE
J
LED PWB
H
POWER SW PWB
FRONT CABINET

Fig.1

3.2 REPLACEMENT OF MEMORY IC

3.2.1 MEMORY IC

This model use a memory IC. This memory IC stores data for proper operation of the video and deflection circuits.
When replacing, be sure to use an IC containing this (initial vaue)data.

3.2.2 PROCEDURE FOR REPLACING MEMORY IC

PROCEDURE

1. Power off
Switch the power off and unplug the power cord from the outlet.

2. Replace IC.
Be sure to use memory IC written with the initial data values.

3. Power on
Plug the power cord into the outlet and switch the power on.

4. SERVICE MENU setting
(1) Press [MUTING] key and [INFORMATION] key at the simultaneously.
(2) The SERVICE MENU screen of Fig. 1 will be displayed.
(3) Verify what to set in the SERVICE MENU, and set whatever is necessary. Refer to the SERVICE ADJUSTMENT for setting.
(4) Press the [MENU] key to exit SERVICE MENU.

5. Receive channel setting
Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.

6. User settings
Check the user setting items according to after page.
Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

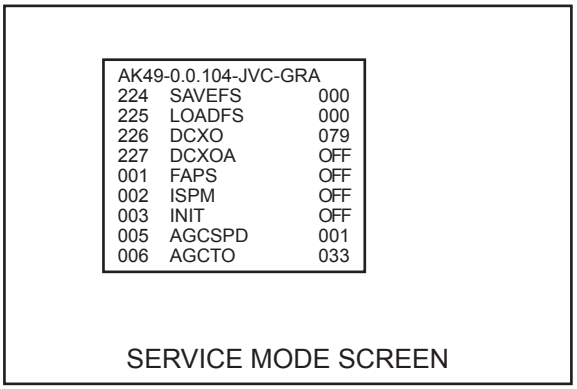


Fig.1

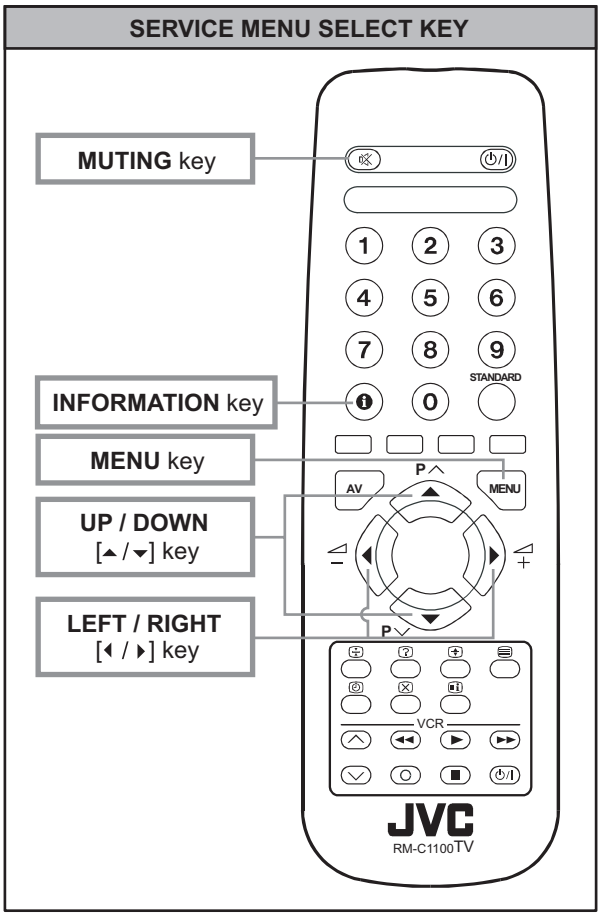


Fig.2

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	PR1

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
CHANNEL	PR1
ZOOM	AUTO
Hyper Sound	OFF

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE

Setting item	Setting position
PICTURE MODE	BRIGHT
COLOUR TEMP	COOL
VNR	AUTO
VCR MODE	OFF

(2) SOUND

Setting item	Setting position
BALANCE	CENTRE
SOUND MODE	STEREO

(3) FEATURE

Setting item	Setting position
SLEEP TIMER	OFF
CHILD LOCK	OFF
LANGUAGE	ENGLISH
EXT-2 OUTPUT	TV
BLUE BACK	ON

(4) INSTALLATION

Setting item	Setting position
COLOUR SYSTEM	AUTO
DECODER (EXT2)	ON
FINE TUNING	CENTRE

SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as given below.
(2) Adjustment with the Remote Control Unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
(3) Make sure that AC power is turned on correctly.
(4) Turn on the power for set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
(5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
(6) Never touch any adjustment parts which are not specified in the list for this adjustment - variable resistors, transformers, condensers, etc.
(7) Presetting before adjustment.
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit:

Setting item	Setting value
BRIGHTNESS	CENTRE
CONTRAST	
COLOUR	
SHARPNESS	
COLOUR TEMP	NORMAL
ZOOM	AUTO

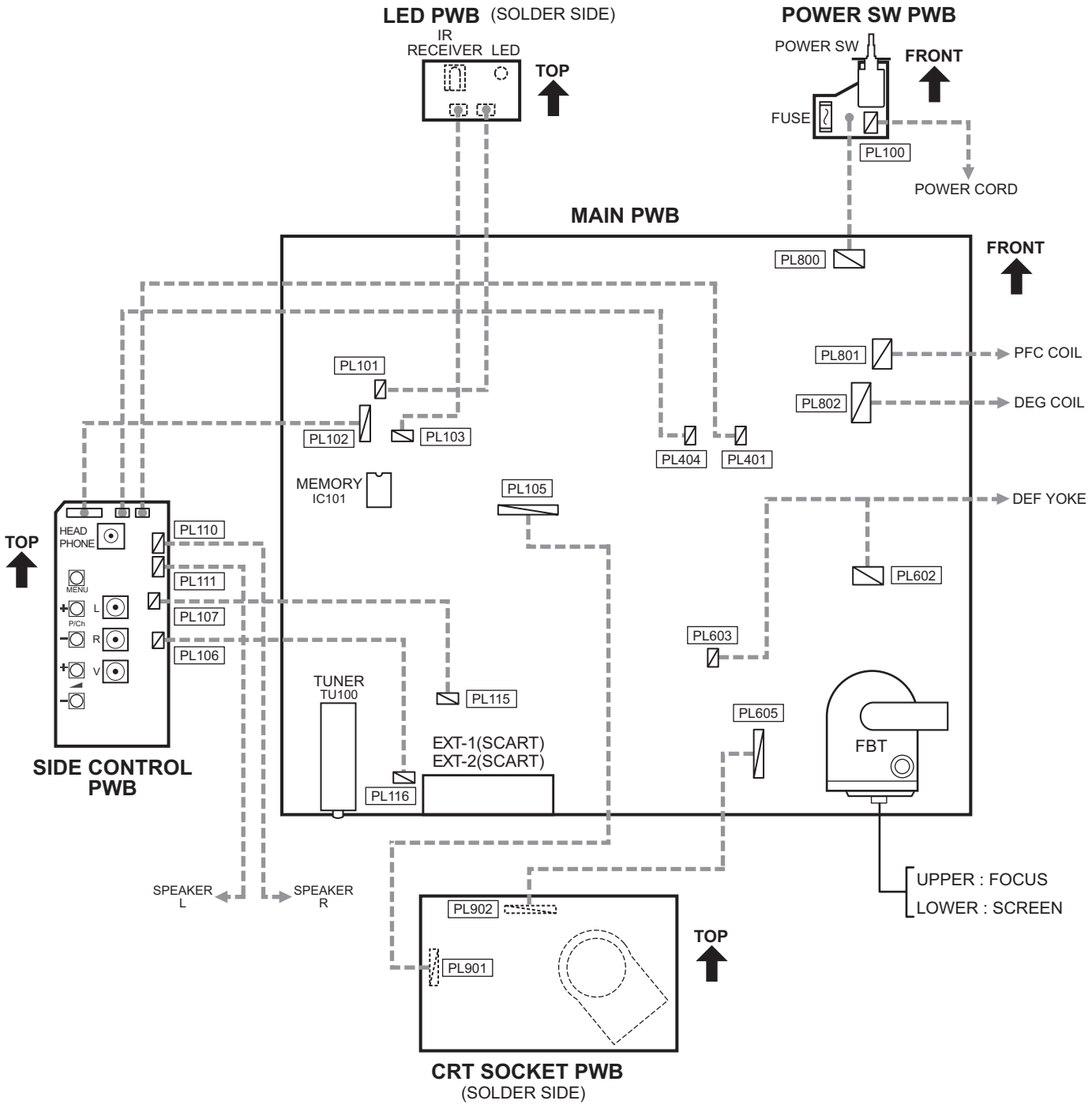
4.2 MEASURING EQUIPMENT

(1) Signal generator (Pattern generator)
[PAL / SECAM / NTSC]
(2) Remote control unit

4.3 ADJUSTMENT ITEM

- FOCUS ADJUSTMENT
- SCREEN ADJUSTMENT
- DEFLECTION CIRCUIT ADJUSTMENT

4.4 ADJUSTMENT LOCATIONS



4.5 BASIC OPERATION OF SERVICE MODE

4.5.1 HOW TO ENTER THE SERVICE MODE

(1) Press the [INFORMATION] key and [MUTING] key simultaneously.
(2) The SERVICE MENU screen will be displayed.(Fig.1)

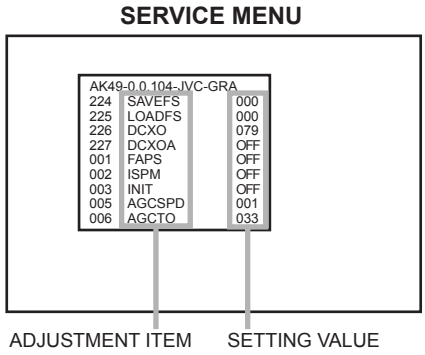


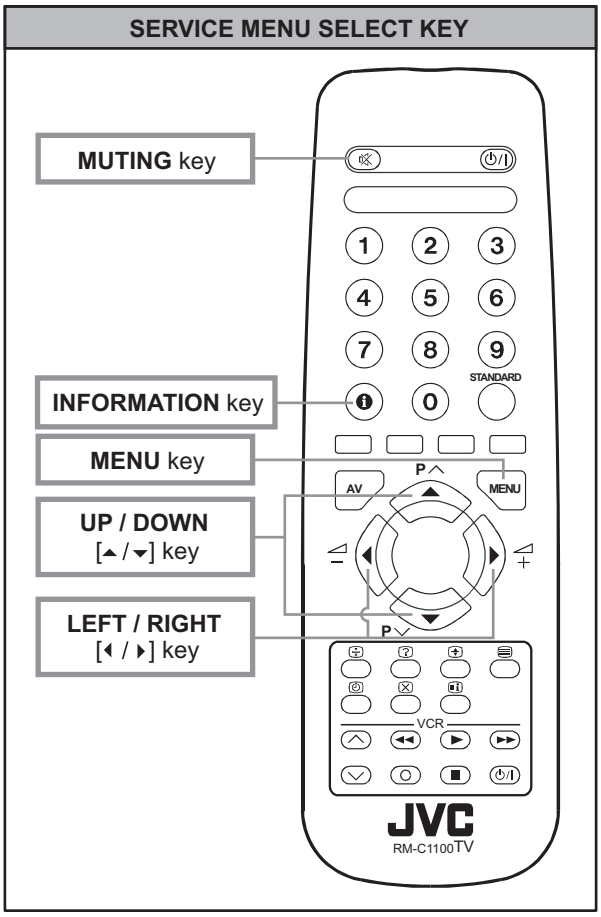
Fig.1

4.5.2 SELECTION OF ADJUSTMENT ITEMS

(1) Enter the SERVICE MODE
(2) Press the FUNCTION [▲]/[▼] key to select the adjustment item.
(3) Press the FUNCTION [◀]/[▶] key to set the setting value.

4.5.3 HOW TO EXIT SERVICE MODE

(1) Press the [MENU] key.



4.6 INITIAL SETTING VALUES IN THE SERVICE MODE

Item No.	Item name	Variable range	Setting value
001	FAPS	---	---
002	ISPM	ON/OFF	OFF
003	INIT	ON/OFF	OFF
005	AGCSPD	000 - 003	001
006	AGCTO	000 - 063	029
007	COFF	---	---
008	VSD	000 - 063	031
009	VG2	000 - 063	031
010	TUBE	000 = 16:9	001
		001 = 4:3	
011	VERT ZOOM	000 - 063	035
012	VERT SLOP	000 - 063	029
013	VERT SHIFT	000 - 063	047
014	VERT AMP	000 - 063	035
015	SCORRECTION	000 - 063	032
016	V-LINC	000 - 002	000
017	V-LINEARTY	000 - 063	037
018	EW WIDTH	000 - 063	051
019	HOR SHIFT	000 - 063	041
020	EW PARAB	000 - 063	043
021	TRAPEZ	000 - 063	011
022	UC PARAB	000 - 063	038
023	LC PARAB	000 - 063	037
024	HOR BOW	000 - 063	030
025	PARALLEL	000 - 063	033
026	WBF	000 - 015	014
027	WBR	000 - 015	010
028	WBF14	000 - 015	014
029	WBR14	000 - 015	013
030	60HZ EWW	000 - 063	034
031	60HZ HSH	000 - 063	037
032	60HZ VSH	000 - 063	031
033	60HZ VZ	000 - 063	035
034	ROT	000 - 063	049
035	ROT-M	000 - 001	000
036	OIF	000 - 063	032
037	IF	000 - 007	002
038	OFR	000 - 001	000
039	FFI	000 - 001	000
040	BS1	000 - 015	001
041	BS2	000 - 015	002
042	BS3	000 - 015	008
043	CB	000 - 255	142
044	B1-H	000 - 255	011
045	B1-L	000 - 255	082
046	B2-H	000 - 255	030
047	B2-L	000 - 255	002
048	FRAV	000 - 003	001

Item No.	Item name	Variable range	Setting value
049	YSCM	000 - 015	012
050	YNTS	000 - 015	002
051	YPAL	000 - 015	012
052	YAV1	000 - 015	012
053	YAV2	000 - 015	012
054	Y_S1	000 - 015	012
055	Y_S2	000 - 015	012
056	COMB	000 = Not active	000
		001 = Active	
058	BLCS	000 = Disable	000
		001 = Enable	
059	BLUS	000 = Disable	000
		001 = Enable	
060	WHTS	000 - 003	000
061	CLPR	000 - 003	000
062	OVSH	000 - 003	000
063	TNTD	000 - 063	032
064	SVMA	ON/OFF	OFF
065	SVM	000 - 007	004
066	VMA	000:OFF	001
		001:0.8 Vp-p	
		002:1.2 Vp-p	
		003:1.8 Vp-p	
067	SMD	000:OFF	001
		001:Video	
		002:TXT/OSD	
		003:Video/OSD	
068	SOPW	000 - 003	003
069	SOTM	000 - 007	007
070	WPRC	000 - 063	028
071	WPGC	000 - 063	018
072	WPBC	000 - 063	039
073	BLORC	000 - 063	028
074	BLOGC	000 - 063	034
075	WPRN	000 - 063	028
076	WPGN	000 - 063	015
077	WPBN	000 - 063	030
078	BLRB-RGB	000 - 063	033
079	BLG-RGB	000 - 063	034
080	WPRW	000 - 063	037
081	WPGW	000 - 063	015
082	WPBW	000 - 063	021
083	BLRB-YUV	000 - 063	030
084	BLG-YUV	000 - 063	034
085	WPR-RGB	000 - 063	037
086	WPG-RGB	000 - 063	035
087	WPB-RGB	000 - 063	032
088	OSO	ON/OFF	ON

Item No.	Item name	Variable range	Setting value
089	FSL	000 - 001	000
090	MUS	ON/OFF	OFF
091	PWL	000 - 015	000
092	BPS	ON/OFF	OFF
093	CLPL	000 - 003	000
094	CL	000 - 015	008
095	AKB	ON/OFF	ON
096	COR	000 - 003	002
098	SSL	000 - 001	001
099	AV2SI	000 = Disable 001 = Enable	001
100	AV3I	000 = Disable 001 = Enable	000
101	FAVI	000 = Disable 001 = Enable	001
102	BAVI	000 = Disable 001 = Enable	000
103	VESI	000 = Disable 001 = Enable	000
104	FSVI	000:Disable Front SVHS if Op_SVHS is enabled 001:Enable Front SVHS if Op_SVHS is enabled	000
105	BSVI	000:Disable Back SVHS if Op_SVHS is enabled 001:Disable Back SVHS if Op_SVHS is enabled	000
106	DVDI	000 = Disable 001 = Enable	000
107	SSTDBG	000 = Disable 001 = Enable	001
108	SSTDI	000 = Disable 001 = Enable	001
109	SSTDDK	000 = Disable 001 = Enable	001
110	SSTDL	000 = Disable 001 = Enable	001
111	NICAM	ON/OFF	ON
112	CNFG	000 = Mono 001 = AV-Stereo 002 = Stereo	002
113	CMUTE	ON/OFF	ON
114	BLNG	000 = Disable 001 = Enable	000
116	OPHP	000 = Disable 001 = Enable	000

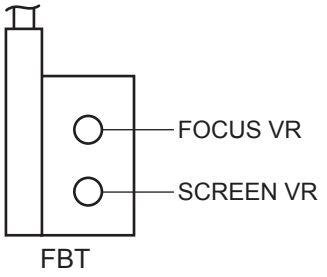
Item No.	Item name	Variable range	Setting value
117	OPEQ	000 = Disable 001 = Enable	000
118	---	---	000
119	V-3D	000 - 063	000
120	---	---	000
121	ODUB	000 - 005	000
122	AVLL	000 - 015	002
123	AVLW	000 - 001	000
124	AVLM	000 - 005	003
125	OPAVL	000 - 001	000
126	AVL	000 - 001	001
127	DECL	000 - 031	015
128	MNLV	000 - 031	015
129	ADCAM	000 - 031	010
130	ADCAV	000 - 031	013
131	NICL	000 - 031	015
132	AV1 PRESCL	000 - 063	046
133	AV2 PRESCL	000 - 063	046
134	E2D	ON/OFF	OFF
135	TXSPLT	000 = Full screen 001 = Split screen	000
136	TXHPOS	000 - 063	000
137	TXEWW	000 - 063	048
138	TXHPA	000 - 063	000
139	TXHPB	000 - 063	000
140	TXHBB	000 - 127	073
141	PATVA	000 - 063	016
142	PATVZ	000 - 063	016
143	PATPARAB	000 - 063	016
144	PATHS	000 - 063	032
145	TXTBRI	000 - 063	032
146	---	---	OFF
147	TXTCON	000 - 015	010
148	LSEL-1	000 - 255	255
149	LSEL-2	000 - 031	031
150	PWPRF	000 = Fast 015 = Perfect	015
151	PWRES	000 = Disable 001 = Enable	001
152	MAXCOL	000 - 063	045
153	MAXBRI	000 - 063	045
154	MAXCON	000 - 063	028
155	PVBRSP	000 - 063	032
156	PVCTSP	000 - 063	032
157	PVCLSP	000 - 063	032
158	PVSHSP	000 - 063	032
159	PVBRMV	000 - 063	032
160	PVCTMV	000 - 063	032
161	PVCLMV	000 - 063	032

Item No.	Item name	Variable range	Setting value
162	PVSHMV	000 - 063	032
163	PVBRWK	000 - 063	032
164	PVCTWK	000 - 063	032
165	PVCLWK	000 - 063	032
166	PVSHWK	000 - 063	032
167	PABAMM	000 - 063	031
168	PATRMM	000 - 063	015
169	PAB1MM	000 - 063	042
170	PAB2MM	000 - 063	058
171	PAB3MM	000 - 063	045
172	PAB4MM	000 - 063	040
173	PAB5MM	000 - 063	058
174	PABAMU	000 - 063	039
175	PATRMU	000 - 063	034
176	PAB1MU	000 - 063	040
177	PAB2MU	000 - 063	050
178	PAB3MU	000 - 063	055
179	PAB4MU	000 - 063	060
180	PAB5MU	000 - 063	063
181	PABATH	000 - 063	034
182	PATRTH	000 - 063	036
183	PAB1TH	000 - 063	030
184	PAB2TH	000 - 063	055
185	PAB3TH	000 - 063	063
186	PAB4TH	000 - 063	050
187	PAB5TH	000 - 063	040
188	PABASP	000 - 063	034
189	PATRSP	000 - 063	036
190	PAB1SP	000 - 063	036
191	PAB2SP	000 - 063	044
192	PAB3SP	000 - 063	044
193	PAB4SP	000 - 063	040
194	PAB5SP	000 - 063	024
198	CTI1	000 - 255	032
199	CTI2	000 - 255	008
200	CTI3	000 - 255	228
201	P BS1	000 - 015	001
202	P BS2	000 - 015	002
203	P BS3	000 - 015	004
204	P CB	000 - 255	142
205	P B1H	000 - 255	012
206	P B1L	000 - 255	032
207	P B2H	000 - 255	030
208	P B2L	000 - 255	002
209	P BRI	000 - 015	007
210	P CON	000 - 015	010
211	P AGC	000 - 255	023
212	P YPAL	000 - 015	000
213	P YSCM	000 - 015	000

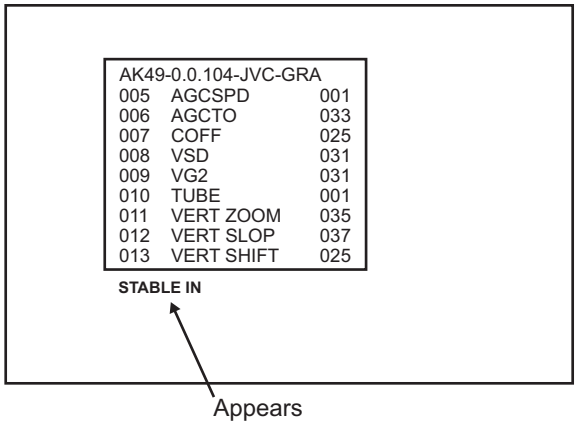
Item No.	Item name	Variable range	Setting value
214	OFB	000 - 063	001
215	PGR	000 - 127	070
216	PGG	000 - 127	080
217	PGB	000 - 127	070
218	REMOTE	---	---
219	PIPPAP	---	---
220	CABINE	---	---
221	ZOOME	---	---
222	---	---	---
223	---	---	---
224	SAVEFS	000 - 001	000
225	LOADFS	000 - 001	000
226	DCXO	000 - 127	079
227	DCXOA	ON/OFF	OFF

4.7 ADJUSTMENTS PROCEDURE

4.7.1 FOCUS ADJUSTMENT

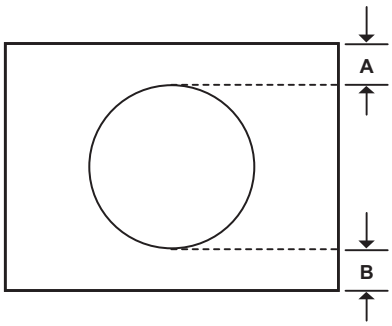
Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator Remote control unit		**FOCUS VR** [On the FBT]	(1) Receive a crosshatch signal. (2) Adjust **FOCUS VR** on the FBT for the lines to become as thin as possible. 

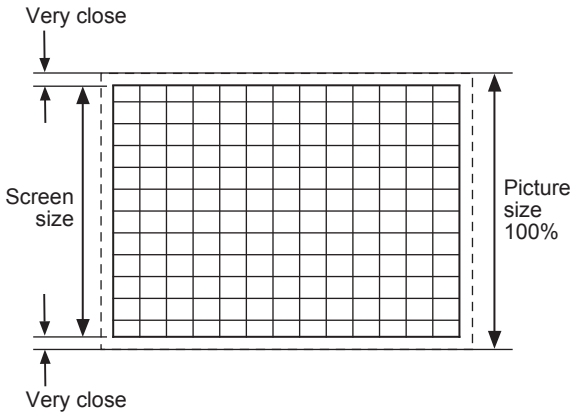
4.7.2 SCREEN ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
SCREEN adjustment	Remote control unit		**SCREEN VR** [On the FBT] **009 VG2** [SERVICE MODE]	(1) Enter the SERVICE MODE. (2) Select **VG2**. (3) Adjust the **SCREEN VR** until the "STABLE IN" sign appears on the screen. 

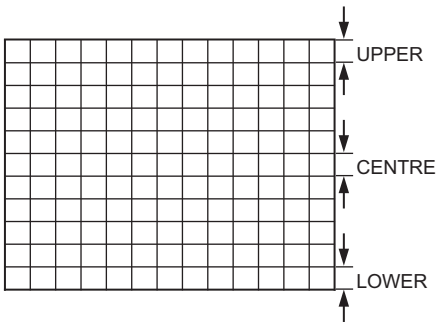
4.7.3 DEFLECTION CIRCUIT ADJUSTMENT

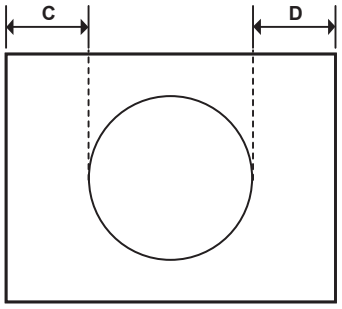
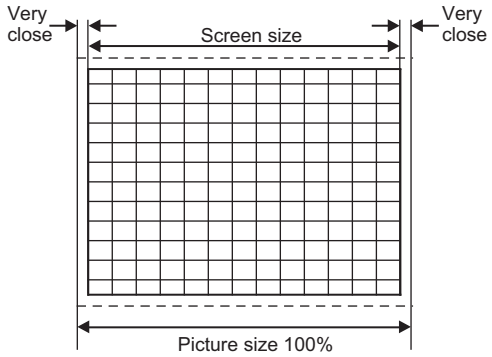
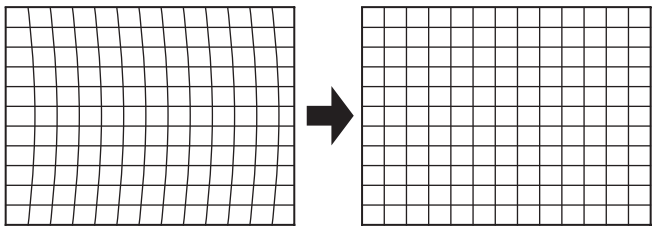
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>VERTICAL SHIFT adjustment</td><td>Signal generator

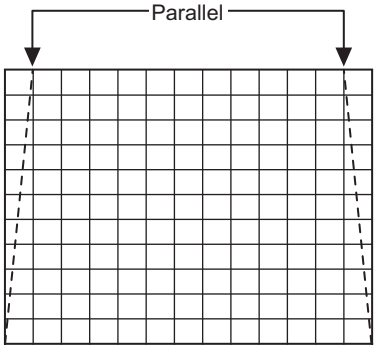
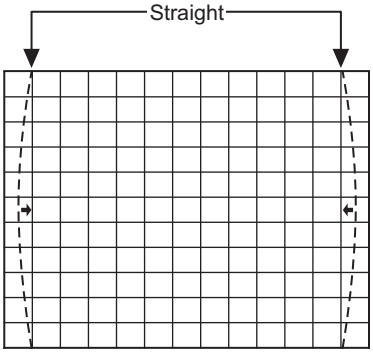
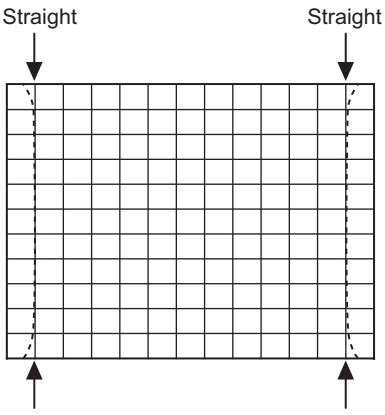
Remote control unit</td><td></td><td>013 VERT SHIFT</td><td rowspan="2">(1) Receive a circle pattern signal.
(2) Enter the SERVICE MODE.
(3) Select VERT SHIFT.
(4) Adjust VERT SHIFT to make A=B.
(5) Check and readjust VERT SHIFT item if the adjustment becomes improper after some other geometric adjustments are done.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>VERTICAL SIZE adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>014 VERT AMP</td><td rowspan="2">(1) Receive a crosshatch signal.
(2) Enter the SERVICE MODE.
(3) Select VERT AMP.
(4) Adjust VERT AMP until horizontal black lines on both the upper and lower part of the crosshatch pattern become very close to the upper and lower horizontal sides of picture size and nearly about to disappear.
(5) Check and readjust VERT AMP item if the adjustment becomes improper after some other geometric adjustments are done.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>VERTICAL S-CORRECTION & LINEARITY adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>015 SCORRECTION

017 V-LINEARITY</td><td rowspan="2">(1) Receive a crosshatch signal.
(2) Enter the SERVICE MODE.
(3) Select SCORRECTION.
(4) Adjust SCORRECTION until the size of squares on both the upper and lower part of crosshatch pattern become equal to the squares laying on the vertical centre of the crosshatch pattern.
(5) Check and readjust SCORRECTION item if the adjustment becomes improper after some other geometric adjustments are done.
(6) Select V-LINEARITY.
(7) Adjust V-LINEARITY until all the size of squares of the crosshatch pattern become in equal size from the top of the screen to its bottom of the whole screen.
(8) Check and readjust V-LINEARITY item if the adjustment becomes improper after some other geometric adjustments (especially after than SCORRECTION adjustment) are done.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
HORIZONTAL SHIFT adjustment	Signal generator Remote control unit		**019 HOR SHIFT**	(1) Receive a circle pattern signal. (2) Enter the SERVICE MODE. (3) Select **HOR SHIFT**. (4) Adjust **HOR SHIFT** to make **C=D**. (5) Check and readjust **HOR SHIFT** item if the adjustment becomes improper after some other geometric adjustments are done.
				
HORIZONTAL SIZE adjustment	Signal generator Remote control unit		**018 EW WIDTH**	(1) Receive a crosshatch signal. (2) Enter the SERVICE MODE. (3) Select **EW WIDTH**. (4) Adjust **EW WIDTH** until no white bars on both the left and right sides of the crosshatch will be visible nor screen will be so wide. (5) Check and readjust **EW WIDTH** item if the adjustment becomes improper after some other geometric adjustments are done.
				
BOW adjustment	Signal generator Remote control unit		**024 HOR BOW**	(1) Receive a crosshatch signal. (2) Enter the SERVICE MODE. (3) Select **HOR BOW**. (4) Adjust **HOR BOW** until the vertical lines become straight. (5) Check and readjust **HOR BOW** item if the adjustment becomes improper after some other geometric adjustments are done. **NOTE :** In case where there is a bow-shaped distortion of images on the screen. (Figure)
				

Item	Measuring instrument	Test point	Adjustment part	Description
TRAPEZIUM adjustment	Signal generator Remote control unit		**021 TRAPEZ**	(1) Receive a crosshatch signal. (2) Enter the SERVICE MODE. (3) Select **TRAPEZ**. (4) Adjust **TRAPEZ** until vertical lines, especially lines at the sides of the picture frame become parallel to the both sides of picture tubes as close as possible. (5) Check and readjust **TRAPEZ** item if the adjustment becomes improper after some other geometric adjustments are done.
				
SIDE PIN adjustment	Signal generator Remote control unit		**020 EW PARAB**	(1) Receive a crosshatch signal. (2) Enter the SERVICE MODE. (3) Select **EW PARAB**. (4) Adjust **EW PARAB** until vertical lines close to the both sides of the picture frame become straight to vertical sides of picture tube without any bending to left or to right side of the screen. (5) Check and readjust **EW PARAB** item if the adjustment becomes improper after some other geometric adjustments are done.
				
CORNER adjustment	Signal generator Remote control unit		**022 UC PARAB** **023 LC PARAB**	(1) Receive a crosshatch signal. (2) Enter the SERVICE MODE. (3) Select **UC PARAB**. (4) Adjust **UC PARAB** until vertical lines at the upper corners of the picture frame become vertical and parallel to vertical corner sides of picture tube. (5) Check and readjust **UC PARAB** item if the adjustment becomes improper after some other geometric adjustments are done. (6) Select **LC PARAB**. (7) Adjust **LC PARAB** until vertical lines at the lower corners of the picture frame become vertical and parallel to vertical corner sides of picture tube. (8) Check and readjust **LC PARAB** item if the adjustment becomes improper after some other geometric adjustments are done.
				

SECTION 5
TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.

JVC
Victor Company of Japan, Limited
Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.52137D)

Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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PACKING PARTS LIST 3-11

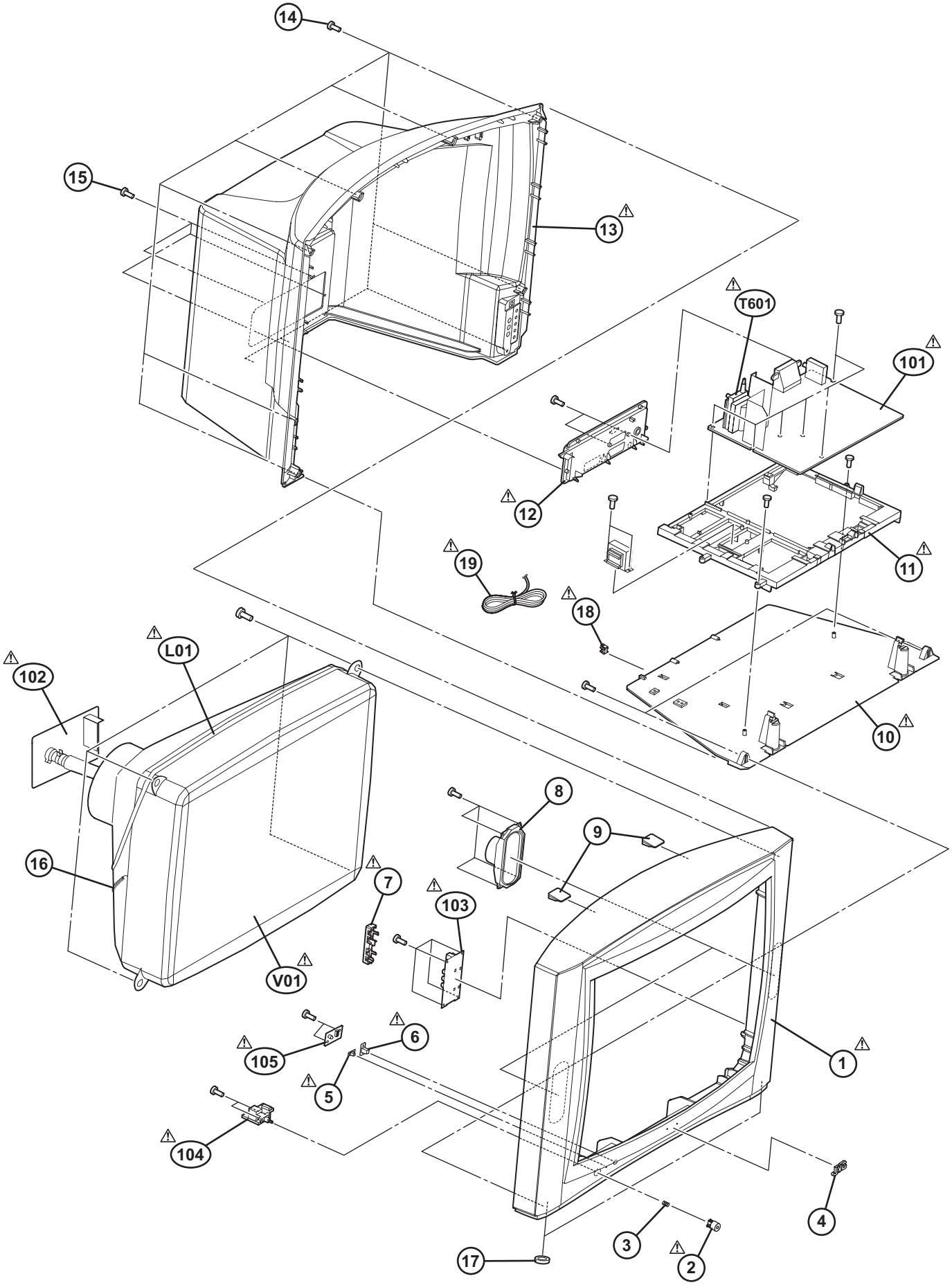
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	P.W.B ASS'Y No.
MAIN P.W.B	VE-20265027
CRT SOCKET P.W.B	VE-20247134
SIDE CONTROL P.W.B	VE-20209390
POWER SW P.W.B	VE-20209413
LED P.W.B	VE-20209387
REMOTE CONTROL UNIT	VE-30017763

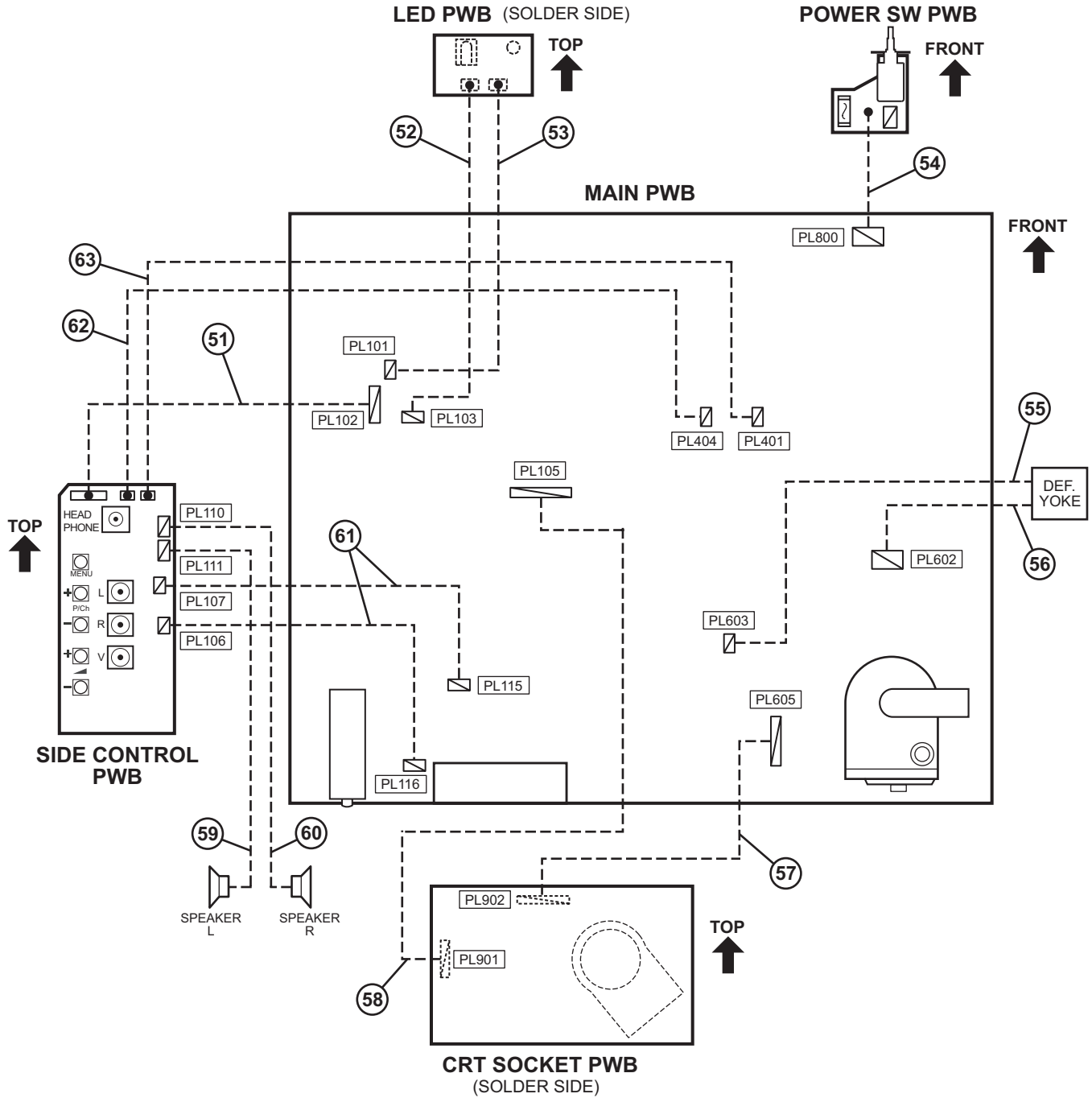
EXPLODED VIEW PARTS LIST -1

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	VE-THO13X01	PICTURE TUBE		
⚠	L01	VE-30032996	DEG. COIL & EARTH		
⚠	T601	VE-30037592	FB TRANSF.	Within MAIN PWB(TR601)	
⚠	1	VE-20119985	FRONT CABINET		
⚠	2	VE-20120046	ON/OFF BUTTON	POWER	
	3	VE-35000013	SPRING	ON/OFF SWITCH	
	4	VE-40013593	JVC LOGO		
⚠	5	VE-20056446	LENS(LED)		
⚠	6	VE-20094352	LENS (IR SENSOR)		
⚠	7	VE-20096498	FUNCTION BUTTON		
	8	VE-30028092	SPEAKER	8ohm 15W 57x160mm(x2)	
	9	VE-20110931	BACK COVER HOLDER	(x2)	
⚠	10	VE-20081578	BASE		
⚠	11	VE-20093231	CHASSIS FRAME		
⚠	12	VE-40024096	BACK DOOR		
⚠	13	VE-20111863	REAR COVER		
	14	VE-35011401	SCREW	(M4x18.5)For REAR COVER(x10)	
	15	VE-35000212	SCREW	(M2.9x13)For BACK DOOR(x4)	
	16	VE-35000010	EARTH SPRING		
	17	VE-40014391	RUBBER FOOT	(x2)	
⚠	18	VE-40024076	CABLE HOLDER		
⚠	19	VE-30016513	POWER CORD	2.2m	
	51	VE-30020822	E-HARNESS ASSY	MAIN PL102 - SIDE CONTROL PWB	
	52	VE-30038429	E-HARNESS ASSY	MAIN PL103 - LED PWB	
	53	VE-30038428	E-HARNESS ASSY	MAIN PL101 - LED PWB	
	54	VE-30032691	E-HARNESS ASSY	MAIN PL800 - POWER SW PWB	
	55	VE-30019083	E-HARNESS ASSY	MAIN PL603 - DEF YOKE	
	56	VE-30032963	E-HARNESS ASSY	MAIN PL602 - DEF YOKE	
	57	VE-30028075	E-HARNESS ASSY	MAIN PL605 - CRT PL902	
	58	VE-30028074	E-HARNESS ASSY	MAIN PL105 - CRT PL901	
	59	VE-30012632	E-HARNESS ASSY	SIDE PL111 - SPEAKER (LEFT)	
	60	VE-30013905	E-HARNESS ASSY	SIDE PL110 - SPEAKER (RIGHT)	
	61	VE-30043063	E-HARNESS ASSY	MAIN PL115+PL116 - SIDE PL106+PL107	
	62	VE-30002306	E-HARNESS ASSY	MAIN PL404 - SIDE PWB	
	63	VE-30002308	E-HARNESS ASSY	MAIN PL401 - SIDE PWB	
⚠	101	VE-20265027	MAIN PWB		
⚠	102	VE-20247134	CRT SOCKET PWB		
⚠	103	VE-20209390	SIDE CONTROL PWB		
⚠	104	VE-20209413	POWER SW PWB		
⚠	105	VE-20209387	LED PWB		

EXPLODED VIEW -1



EXPLODED VIEW -2



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (VE-20265027)

⚠Ref No.	Part No.	Part Name	Description Local
IC100	VE-30029324	IC	
IC101	VE-20262898	IC	(SERVICE)
IC400	VE-30027557	IC	
IC403	VE-30038486	IC	
IC601	VE-30013612	IC	
IC800	VE-30001668	IC	
IC801	VE-30001668	IC	
IC802	VE-30001384	TRANSISTOR	
⚠IC803	VE-30001270	PTC	
IC804	VE-30031947	IC	
⚠IC805	VE-30015087	IC	
IC806	VE-30031524	IC	
Q100	VE-30029775	TRANSISTOR	
Q101	VE-30001457	TRANSISTOR	
Q102	VE-30029775	TRANSISTOR	
Q103	VE-30029775	TRANSISTOR	
Q104	VE-30001458	TRANSISTOR	
Q106	VE-30001452	TRANSISTOR	
Q107	VE-30029322	TRANSISTOR	
Q108	VE-30001457	TRANSISTOR	
Q109	VE-30024724	TRANSISTOR	
Q110	VE-30001457	TRANSISTOR	
Q113	VE-30001452	TRANSISTOR	
Q114	VE-30001457	TRANSISTOR	
Q115	VE-30001458	TRANSISTOR	
Q116	VE-30001457	TRANSISTOR	
Q117	VE-30001458	TRANSISTOR	
Q118	VE-30001457	TRANSISTOR	
Q119	VE-30001457	TRANSISTOR	
Q121	VE-30001458	TRANSISTOR	
Q122	VE-30001457	TRANSISTOR	
Q401	VE-30001458	TRANSISTOR	
Q402	VE-30001457	TRANSISTOR	
Q403	VE-30001458	TRANSISTOR	
Q600	VE-30001441	TRANSISTOR	
Q601	VE-30031823	TRANSISTOR	
Q602	VE-30007799	TRANSISTOR	
Q605	VE-30001426	TRANSISTOR	
Q607	VE-30001458	TRANSISTOR	
Q608	VE-30001458	TRANSISTOR	
Q801	VE-30001457	TRANSISTOR	
Q802	VE-30001386	TRANSISTOR	
Q805	VE-30001454	TRANSISTOR	
Q806	VE-30001426	TRANSISTOR	
Q807	VE-30001457	TRANSISTOR	
Q808	VE-30001457	TRANSISTOR	
Q809	VE-30001457	TRANSISTOR	
Q810	VE-30001454	TRANSISTOR	
Q811	VE-30001454	TRANSISTOR	
Q812	VE-30001457	TRANSISTOR	
Q813	VE-30001458	TRANSISTOR	
D100	VE-30038493	DIODE	
D101	VE-30001285	DIODE	
D102	VE-30001285	DIODE	
D103	VE-30038493	DIODE	
D104	VE-30012411	DIODE	
D105	VE-30001285	DIODE	
D108	VE-30038472	Z DIODE	
D111	VE-30038472	Z DIODE	
D112	VE-30038472	Z DIODE	
D113	VE-30036987	DIODE	
D114	VE-30036988	DIODE	
D115	VE-30036988	DIODE	
D116	VE-30036987	DIODE	
D117	VE-30036987	DIODE	
D118	VE-30036988	DIODE	
D119	VE-30036988	DIODE	
D120	VE-30036988	DIODE	
D121	VE-30012669	RESISTOR	1/16W 22K J
D155	VE-30038497	DIODE	
D403	VE-30001285	DIODE	
D601	VE-30001285	DIODE	
D602	VE-30001285	DIODE	
D603	VE-30001285	DIODE	
D604	VE-30001320	DIODE	
D605	VE-30007681	DIODE	
D606	VE-30001318	DIODE	
D607	VE-30038476	Z DIODE	
D608	VE-30038492	Z DIODE	
D609	VE-30001318	DIODE	
D610	VE-30001288	DIODE	
D611	VE-30001318	DIODE	
D612	VE-30001318	DIODE	

⚠Ref No.	Part No.	Part Name	Description Local
D613	VE-30001318	DIODE	
D614	VE-30038472	Z DIODE	
D616	VE-30001285	DIODE	
D618	VE-30038504	DIODE	
D620	VE-30038472	Z DIODE	
D622	VE-30001285	DIODE	
D800	VE-20108354	DIODE	
D801	VE-30001329	DIODE	
D802	VE-30001318	DIODE	
D805	VE-30001318	DIODE	
D806	VE-30001318	DIODE	
D808	VE-30001288	DIODE	
D809	VE-30001288	DIODE	
D810	VE-30038472	Z DIODE	
D811	VE-30001318	DIODE	
D813	VE-30001285	DIODE	
D814	VE-30001343	DIODE	
D815	VE-30001285	DIODE	
D816	VE-30001323	DIODE	
D817	VE-30034072	DIODE	
D818	VE-30009366	DIODE	
D819	VE-30001288	DIODE	
D820	VE-30009366	DIODE	
D822	VE-30001318	DIODE	
D823	VE-30001329	DIODE	
D827	VE-30038478	DIODE	
C100	VE-30016654	CAPACITOR	100nF 16V K
C101	VE-30000371	E CAPACITOR	22uF 50V M
C107	VE-30016654	CAPACITOR	100nF 16V K
C108	VE-30016654	CAPACITOR	100nF 16V K
C114	VE-30000345	E CAPACITOR	10uF 50V M
C115	VE-30012586	CAPACITOR	22nF 50V K
C116	VE-30016126	CAPACITOR	220nF 16V K
C117	VE-30016654	CAPACITOR	100nF 16V K
C119	VE-30000371	E CAPACITOR	22uF 50V M
C121	VE-30016126	CAPACITOR	220nF 16V K
C122	VE-30016126	CAPACITOR	220nF 16V K
C126	VE-30016126	CAPACITOR	220nF 16V K
C127	VE-30000345	E CAPACITOR	10uF 50V M
C128	VE-30000345	E CAPACITOR	10uF 50V M
C129	VE-30016654	CAPACITOR	100nF 16V K
C130	VE-30016654	CAPACITOR	100nF 16V K
C131	VE-30016126	CAPACITOR	220nF 16V K
C132	VE-30012610	CAPACITOR	10nF 50V J
C133	VE-30016126	CAPACITOR	220nF 16V K
C134	VE-30016126	CAPACITOR	220nF 16V K
C135	VE-30000352	E CAPACITOR	100uF 16V M
C136	VE-30016126	CAPACITOR	220nF 16V K
C137	VE-30000352	E CAPACITOR	100uF 16V M
C138	VE-30000352	E CAPACITOR	100uF 16V M
C139	VE-30016654	CAPACITOR	100nF 16V K
C140	VE-30016126	CAPACITOR	220nF 16V K
C141	VE-30016126	CAPACITOR	220nF 16V K
C142	VE-30016126	CAPACITOR	220nF 16V K
C143	VE-30012609	CAPACITOR	68nF 50V K
C144	VE-30016654	CAPACITOR	100nF 16V K
C145	VE-30000352	E CAPACITOR	100uF 16V M
C146	VE-30012610	CAPACITOR	10nF 50V J
C147	VE-30000345	E CAPACITOR	10uF 50V M
C148	VE-30016654	CAPACITOR	100nF 16V K
C151	VE-30012617	CAPACITOR	6.8nF 50V M
C152	VE-30012585	CAPACITOR	2.2nF 50V K
C153	VE-30000352	E CAPACITOR	100uF 16V M
C154	VE-30012577	CAPACITOR	560pF 50V J
C155	VE-30000345	E CAPACITOR	10uF 50V M
C156	VE-30016654	CAPACITOR	100nF 16V K
C157	VE-30016126	CAPACITOR	220nF 16V K
C158	VE-30000352	E CAPACITOR	100uF 16V M
C161	VE-30012610	CAPACITOR	10nF 50V J
C162	VE-30000396	E CAPACITOR	47uF 16V M
C163	VE-30000362	E CAPACITOR	1uF 50V M
C164	VE-30012586	CAPACITOR	22nF 50V K
C165	VE-30016126	CAPACITOR	220nF 16V K
C166	VE-30000345	E CAPACITOR	10uF 50V M
C167	VE-30012581	CAPACITOR	1nF 50V K
C168	VE-30012581	CAPACITOR	1nF 50V K
C169	VE-30000083	CAPACITOR	150nF 63V J
C170	VE-30016654	CAPACITOR	100nF 16V K
C171	VE-30016654	CAPACITOR	100nF 16V K
C172	VE-30016654	CAPACITOR	100nF 16V K
C173	VE-30016654	CAPACITOR	100nF 16V K
C174	VE-30016654	CAPACITOR	100nF 16V K
C175	VE-30016654	CAPACITOR	100nF 16V K
C176	VE-30016654	CAPACITOR	100nF 16V K
C178	VE-30012610	CAPACITOR	10nF 50V J
C179	VE-30016126	CAPACITOR	220nF 16V K

⚠Ref No.	Part No.	Part Name	Description	Local
C180	VE-30012610	CAPACITOR	10nF 50V J	
C181	VE-30012603	CAPACITOR	100nF 25V K	
C182	VE-30016654	CAPACITOR	100nF 16V K	
C183	VE-30024768	CAPACITOR	470nF 16V Z	
C184	VE-30024768	CAPACITOR	470nF 16V Z	
C185	VE-30016654	CAPACITOR	100nF 16V K	
C186	VE-30016654	CAPACITOR	100nF 16V K	
C187	VE-30000345	E CAPACITOR	10uF 50V M	
C189	VE-30012587	CAPACITOR	3.3nF 50V K	
C190	VE-30024768	CAPACITOR	470nF 16V Z	
C191	VE-30016654	CAPACITOR	100nF 16V K	
C192	VE-30000413	E CAPACITOR	4.7uF 50V M	
C193	VE-30016654	CAPACITOR	100nF 16V K	
C194	VE-30024768	CAPACITOR	470nF 16V Z	
C195	VE-30000384	E CAPACITOR	2.2uF 50V M	
C196	VE-30000384	E CAPACITOR	2.2uF 50V M	
C197	VE-30000384	E CAPACITOR	2.2uF 50V M	
C199	VE-30000384	E CAPACITOR	2.2uF 50V M	
C200	VE-30016654	CAPACITOR	100nF 16V K	
C201	VE-30016654	CAPACITOR	100nF 16V K	
C203	VE-30012610	CAPACITOR	10nF 50V J	
C204	VE-30000345	E CAPACITOR	10uF 50V M	
C205	VE-30000345	E CAPACITOR	10uF 50V M	
C206	VE-30024768	CAPACITOR	470nF 16V Z	
C207	VE-30016654	CAPACITOR	100nF 16V K	
C208	VE-30024768	CAPACITOR	470nF 16V Z	
C210	VE-30000384	E CAPACITOR	2.2uF 50V M	
C211	VE-30000384	E CAPACITOR	2.2uF 50V M	
C212	VE-30016654	CAPACITOR	100nF 16V K	
C213	VE-30000352	E CAPACITOR	100uF 16V M	
C222	VE-30012581	CAPACITOR	1nF 50V K	
C223	VE-30012581	CAPACITOR	1nF 50V K	
C236	VE-30012581	CAPACITOR	1nF 50V K	
C237	VE-30012581	CAPACITOR	1nF 50V K	
C238	VE-30012589	CAPACITOR	4.7nF 50V K	
C239	VE-30012603	CAPACITOR	100nF 25V K	
C240	VE-30012566	CAPACITOR	22pF 50V J	
C241	VE-30012566	CAPACITOR	22pF 50V J	
C242	VE-30012566	CAPACITOR	22pF 50V J	
C243	VE-30012566	CAPACITOR	22pF 50V J	
C244	VE-30012607	CAPACITOR	150pF 50V J	
C245	VE-30012573	CAPACITOR	47pF 50V J	
C250	VE-30012589	CAPACITOR	4.7nF 50V K	
C251	VE-30012589	CAPACITOR	4.7nF 50V K	
C252	VE-30012589	CAPACITOR	4.7nF 50V K	
C253	VE-30012581	CAPACITOR	1nF 50V K	
C254	VE-30012581	CAPACITOR	1nF 50V K	
C256	VE-30012566	CAPACITOR	22pF 50V J	
C257	VE-30012603	CAPACITOR	100nF 25V K	
C259	VE-30012607	CAPACITOR	150pF 50V J	
C260	VE-30012566	CAPACITOR	22pF 50V J	
C272	VE-30012607	CAPACITOR	150pF 50V J	
C273	VE-30012581	CAPACITOR	1nF 50V K	
C274	VE-30012581	CAPACITOR	1nF 50V K	
C278	VE-30000396	E CAPACITOR	47uF 16V M	
C279	VE-30000396	E CAPACITOR	47uF 16V M	
C280	VE-30000396	E CAPACITOR	47uF 16V M	
C281	VE-30000352	E CAPACITOR	100uF 16V M	
C283	VE-30000400	E CAPACITOR	47uF 50V M	
C400	VE-30012580	CAPACITOR	820pF 50V J	
C401	VE-30012577	CAPACITOR	560pF 50V J	
C402	VE-30012581	CAPACITOR	1nF 50V K	
C403	VE-30000392	E CAPACITOR	0.33uF 50V M	
C404	VE-30012581	CAPACITOR	1nF 50V K	
C405	VE-30012577	CAPACITOR	560pF 50V J	
C406	VE-30012590	CAPACITOR	47nF 50V K	
C407	VE-30000371	E CAPACITOR	22uF 50V M	
C408	VE-30012577	CAPACITOR	560pF 50V J	
C409	VE-30012577	CAPACITOR	560pF 50V J	
C410	VE-30000371	E CAPACITOR	22uF 50V M	
C411	VE-30012590	CAPACITOR	47nF 50V K	
C412	VE-30012609	CAPACITOR	68nF 50V K	
C413	VE-30007082	CAPACITOR	680nF 63V J	
C414	VE-30007179	E CAPACITOR	33uF 100V M	
C415	VE-30000409	E CAPACITOR	470uF 25V	
C416	VE-30000409	E CAPACITOR	470uF 25V	
C417	VE-30012581	CAPACITOR	1nF 50V K	
C418	VE-30012581	CAPACITOR	1nF 50V K	
C419	VE-30000392	E CAPACITOR	0.33uF 50V M	
C420	VE-30012580	CAPACITOR	820pF 50V J	
C427	VE-30000296	C CAPACITOR	100nF 100V Z	
C428	VE-30012603	CAPACITOR	100nF 25V K	
C429	VE-30007082	CAPACITOR	680nF 63V J	
C430	VE-30012603	CAPACITOR	100nF 25V K	
C431	VE-30012609	CAPACITOR	68nF 50V K	
C432	VE-30000296	C CAPACITOR	100nF 100V Z	
C433	VE-30000109	CAPACITOR	470nF 63V J	
C439	VE-30012567	CAPACITOR	220pF 50V J	
C440	VE-30000109	CAPACITOR	470nF 63V J	
C441	VE-30000296	C CAPACITOR	100nF 100V Z	
C449	VE-30000352	E CAPACITOR	100uF 16V M	
C450	VE-30016654	CAPACITOR	100nF 16V K	
C604	VE-30000407	E CAPACITOR	470uF 16V M	
C605	VE-30000074	CAPACITOR	100nF 63V J	
C606	VE-30000090	CAPACITOR	22nF 100V J	
C607	VE-30023474	CAPACITOR	6.2nF 2000VDC	
C608	VE-30023478	CAPACITOR	8.2nF 2000VDC	
C609	VE-30000107	CAPACITOR	47nF 250V J	
C610	VE-30000346	E CAPACITOR	10uF 100V M	
⚠C611	VE-30000144	CAPACITOR	22nF 630VDC J	
⚠C613	VE-30000167	CAPACITOR	560nF 250V J	
⚠C615	VE-30000162	CAPACITOR	470nF 250V J	
C616	VE-30000385	E CAPACITOR	2.2uF 250V M	
C617	VE-30000433	C CAPACITOR	1nF 1KV M	
C618	VE-30012590	CAPACITOR	47nF 50V K	
C619	VE-30000296	C CAPACITOR	100nF 100V Z	
C620	VE-30000391	E CAPACITOR	330uF 63V M	
C621	VE-30012590	CAPACITOR	47nF 50V K	
C622	VE-30000296	C CAPACITOR	100nF 100V Z	
C623	VE-30012590	CAPACITOR	47nF 50V K	
C624	VE-30000444	C CAPACITOR	470pF 1KV K	
C625	VE-30000409	E CAPACITOR	470uF 25V	
C626	VE-30000400	E CAPACITOR	47uF 50V M	
C627	VE-30000350	E CAPACITOR	10uF 250V M	
C629	VE-30000406	E CAPACITOR	47uF 250V M	
C630	VE-30000346	E CAPACITOR	10uF 100V M	
C631	VE-30012590	CAPACITOR	47nF 50V K	
C633	VE-30000296	C CAPACITOR	100nF 100V Z	
C634	VE-30000283	C CAPACITOR	1nF 50V K	
C636	VE-30000092	CAPACITOR	220nF 63V J	
C637	VE-30000100	CAPACITOR	330nF 63V J	
C638	VE-30012567	CAPACITOR	220pF 50V J	
C639	VE-30000345	E CAPACITOR	10uF 50V M	
C640	VE-30012590	CAPACITOR	47nF 50V K	
⚠C641	VE-30000167	CAPACITOR	560nF 250V J	
C642	VE-30016654	CAPACITOR	100nF 16V K	
C800	VE-30000433	C CAPACITOR	1nF 1KV M	
⚠C801	VE-30000084	CAPACITOR	150nF 275V M	
⚠C802	VE-30000094	CAPACITOR	220nF 275V M	
⚠C807	VE-30000161	CAPACITOR	47nF 630VDC J	
C808	VE-30000393	E CAPACITOR	3.3uF 50V M	
C810	VE-30000421	E CAPACITOR	220uF 400V M	
C811	VE-30000319	C CAPACITOR	2.7nF 500V K	
C813	VE-30000387	E CAPACITOR	33uF 50V M	
⚠C814	VE-30000161	CAPACITOR	47nF 630VDC J	
C815	VE-30007308	C CAPACITOR	220pF 1KV K	
C818	VE-30009208	C CAPACITOR	470pF 1KV K	
⚠C819	VE-30000440	C CAPACITOR	2.2nF 4KV M	
⚠C820	VE-30000440	C CAPACITOR	2.2nF 4KV M	
C822	VE-30000330	C CAPACITOR	4.7nF 50V K	
C825	VE-30012567	CAPACITOR	220pF 50V J	
C826	VE-30007708	C CAPACITOR	1nF 1KV K	
C827	VE-30000406	E CAPACITOR	47uF 250V M	
C828	VE-30000436	C CAPACITOR	10nF 1KV Z	
C829	VE-30006753	C CAPACITOR	220pF 1KV K	
C830	VE-30006753	C CAPACITOR	220pF 1KV K	
C831	VE-30012603	CAPACITOR	100nF 25V K	
C832	VE-30012603	CAPACITOR	100nF 25V K	
C833	VE-30012603	CAPACITOR	100nF 25V K	
C834	VE-30016654	CAPACITOR	100nF 16V K	
C836	VE-30016654	CAPACITOR	100nF 16V K	
C839	VE-30016654	CAPACITOR	100nF 16V K	
C840	VE-30000400	E CAPACITOR	47uF 50V M	
C841	VE-30000383	E CAPACITOR	2200uF 25V M	
C842	VE-30000383	E CAPACITOR	2200uF 25V M	
C843	VE-30000360	E CAPACITOR	1000uF 25V M	
C844	VE-30000383	E CAPACITOR	2200uF 25V M	
C845	VE-30000382	E CAPACITOR	2200uF 16V M	
C847	VE-30000367	E CAPACITOR	1uF 250V M	
C848	VE-30016654	CAPACITOR	100nF 16V K	
C849	VE-30000283	C CAPACITOR	1nF 50V K	
C850	VE-30012581	CAPACITOR	1nF 50V K	
C851	VE-30016654	CAPACITOR	100nF 16V K	
C852	VE-30016654	CAPACITOR	100nF 16V K	
C853	VE-30016654	CAPACITOR	100nF 16V K	
C854	VE-30000362	E CAPACITOR	1uF 50V M	
C855	VE-30031826	E CAPACITOR	4700uF 6.3V M	
C856	VE-30016654	CAPACITOR	100nF 16V K	
C857	VE-30031825	E CAPACITOR	2200uF 6.3V M	
C859	VE-30000352	E CAPACITOR	100uF 16V M	
C862	VE-30012642	RESISTOR	1/16W 120K J	
R100	VE-30000583	RESISTOR	1/4W 220R	
R101	VE-30000626	RESISTOR	1/10W 270R J	
R102	VE-30012677	RESISTOR	1/16W 3.3K J	
R103	VE-30000459	RESISTOR	1/4W 100R J	
R104	VE-30012692	RESISTOR	1/16W 4.7K J	
R105	VE-30012510	RESISTOR	1/16W 100R J	
R106	VE-30012692	RESISTOR	1/16W 4.7K J	
R107	VE-30012692	RESISTOR	1/16W 4.7K J	

⚠Ref No.	Part No.	Part Name	Description Local
R108	VE-30012510	RESISTOR	1/16W 100R J
R111	VE-30000459	RESISTOR	1/4W 100R J
R112	VE-30000459	RESISTOR	1/4W 100R J
R113	VE-30012677	RESISTOR	1/16W 3.3K J
R114	VE-30012641	RESISTOR	1/16W 10K J
R115	VE-30012668	RESISTOR	1/16W 220R J
R116	VE-30012657	RESISTOR	1/16W 1K J
R117	VE-30012655	RESISTOR	1/16W 180R J
R118	VE-30012677	RESISTOR	1/16W 3.3K J
R119	VE-30012677	RESISTOR	1/16W 3.3K J
R126	VE-30012669	RESISTOR	1/16W 22K J
R127	VE-30012648	RESISTOR	1/16W 150K J
R128	VE-30012692	RESISTOR	1/16W 4.7K J
R129	VE-30012695	RESISTOR	1/16W 470R J
R132	VE-30012657	RESISTOR	1/16W 1K J
R133	VE-30012659	RESISTOR	1/16W 2.2K J
R137	VE-30012510	RESISTOR	1/16W 100R J
R138	VE-30000459	RESISTOR	1/4W 100R J
R139	VE-30000459	RESISTOR	1/4W 100R J
R141	VE-30000459	RESISTOR	1/4W 100R J
R142	VE-30000459	RESISTOR	1/4W 100R J
R143	VE-30012650	RESISTOR	1/16W 15K J
R144	VE-30000594	RESISTOR	1/4W 22K J
R145	VE-30012657	RESISTOR	1/16W 1K J
R148	VE-30012641	RESISTOR	1/16W 10K J
R149	VE-30000459	RESISTOR	1/4W 100R J
R150	VE-30012510	RESISTOR	1/16W 100R J
R155	VE-30012650	RESISTOR	1/16W 15K J
R158	VE-30012510	RESISTOR	1/16W 100R J
R159	VE-30000459	RESISTOR	1/4W 100R J
R160	VE-30012650	RESISTOR	1/16W 15K J
R167	VE-30012669	RESISTOR	1/16W 22K J
R168	VE-30000718	RESISTOR	1/4W 4.7K J
R170	VE-30000628	RESISTOR	1/4W 2.7K J
R171	VE-30000459	RESISTOR	1/4W 100R J
R172	VE-30012510	RESISTOR	1/16W 100R J
R173	VE-30012510	RESISTOR	1/16W 100R J
R174	VE-30012510	RESISTOR	1/16W 100R J
R175	VE-30012641	RESISTOR	1/16W 10K J
R176	VE-30012668	RESISTOR	1/16W 220R J
R178	VE-30000599	RESISTOR	1/4W 220K J
R179	VE-30012510	RESISTOR	1/16W 100R J
R180	VE-30012510	RESISTOR	1/16W 100R J
R181	VE-30012650	RESISTOR	1/16W 15K J
R182	VE-30000459	RESISTOR	1/4W 100R J
R185	VE-30012510	RESISTOR	1/16W 100R J
R187	VE-30006712	FERRITE BEAD	
R192	VE-30012510	RESISTOR	1/16W 100R J
R193	VE-30012510	RESISTOR	1/16W 100R J
R195	VE-30012695	RESISTOR	1/16W 470R J
R196	VE-30012657	RESISTOR	1/16W 1K J
R197	VE-30012657	RESISTOR	1/16W 1K J
R198	VE-30000495	RESISTOR CF	1/4W 1.2K J
R199	VE-30000975	RESISTOR	1/4W 39K J
R200	VE-30000770	RESISTOR	1/4W 680R J
R201	VE-30000752	RESISTOR	1/4W 56K J
R202	VE-30012642	RESISTOR	1/16W 120K J
R203	VE-30012696	RESISTOR	1/16W 47K J
R204	VE-30012504	RESISTOR	1/16W 1.2K J
R205	VE-30012510	RESISTOR	1/16W 100R J
R206	VE-30012688	RESISTOR	1/16W 390R J
R207	VE-30000459	RESISTOR	1/4W 100R J
R208	VE-30000459	RESISTOR	1/4W 100R J
R209	VE-30012644	RESISTOR	1/16W 12K J
R212	VE-30012510	RESISTOR	1/16W 100R J
R214	VE-30012644	RESISTOR	1/16W 12K J
R215	VE-30012641	RESISTOR	1/16W 10K J
R216	VE-30012641	RESISTOR	1/16W 10K J
R217	VE-30012641	RESISTOR	1/16W 10K J
R218	VE-30012708	RESISTOR	1/16W 68K J
R219	VE-30012641	RESISTOR	1/16W 10K J
R220	VE-30012641	RESISTOR	1/16W 10K J
R222	VE-30012510	RESISTOR	1/16W 100R J
R223	VE-30012510	RESISTOR	1/16W 100R J
R224	VE-30012510	RESISTOR	1/16W 100R J
R230	VE-30012641	RESISTOR	1/16W 10K J
R231	VE-30012510	RESISTOR	1/16W 100R J
R233	VE-30000459	RESISTOR	1/4W 100R J
R234	VE-30012641	RESISTOR	1/16W 10K J
R235	VE-30012641	RESISTOR	1/16W 10K J
R236	VE-30000471	RESISTOR	1/4W 10K J
R237	VE-30000471	RESISTOR	1/4W 10K J
R238	VE-30012641	RESISTOR	1/16W 10K J
R240	VE-30012641	RESISTOR	1/16W 10K J
R241	VE-30012641	RESISTOR	1/16W 10K J
R242	VE-30012510	RESISTOR	1/16W 100R J
R244	VE-30012702	RESISTOR	1/16W 560R J
R245	VE-30000459	RESISTOR	1/4W 100R J
R246	VE-30012510	RESISTOR	1/16W 100R J
R247	VE-30012982	RESISTOR	1/16W 10R J
R248	VE-30012657	RESISTOR	1/16W 1K J
R249	VE-30012509	RESISTOR	1/16W 100K J
R250	VE-30014078	RESISTOR	1/16W 22R J
R251	VE-30012713	RESISTOR	1/16W 75R J
R252	VE-30012668	RESISTOR	1/16W 220R J
R265	VE-30012684	RESISTOR	1/16W 330R J
R266	VE-30012684	RESISTOR	1/16W 330R J
R267	VE-30012713	RESISTOR	1/16W 75R J
R268	VE-30012677	RESISTOR	1/16W 3.3K J
R269	VE-30012510	RESISTOR	1/16W 100R J
R270	VE-30012510	RESISTOR	1/16W 100R J
R271	VE-30012510	RESISTOR	1/16W 100R J
R272	VE-30000471	RESISTOR	1/4W 10K J
R273	VE-30012713	RESISTOR	1/16W 75R J
R274	VE-30012713	RESISTOR	1/16W 75R J
R275	VE-30014078	RESISTOR	1/16W 22R J
R276	VE-30012657	RESISTOR	1/16W 1K J
R277	VE-30012510	RESISTOR	1/16W 100R J
R278	VE-30012510	RESISTOR	1/16W 100R J
R279	VE-30012713	RESISTOR	1/16W 75R J
R280	VE-30012713	RESISTOR	1/16W 75R J
R281	VE-30000466	RESISTOR	1/4W 1K J
R282	VE-30012509	RESISTOR	1/16W 100K J
R283	VE-30012713	RESISTOR	1/16W 75R J
R298	VE-30012684	RESISTOR	1/16W 330R J
R299	VE-30012684	RESISTOR	1/16W 330R J
R300	VE-30012641	RESISTOR	1/16W 10K J
R302	VE-30012713	RESISTOR	1/16W 75R J
R304	VE-30012510	RESISTOR	1/16W 100R J
R305	VE-30012677	RESISTOR	1/16W 3.3K J
R307	VE-30012713	RESISTOR	1/16W 75R J
R308	VE-30012510	RESISTOR	1/16W 100R J
R316	VE-30012510	RESISTOR	1/16W 100R J
R318	VE-30012713	RESISTOR	1/16W 75R J
R327	VE-30012510	RESISTOR	1/16W 100R J
R328	VE-30012510	RESISTOR	1/16W 100R J
R400	VE-30012510	RESISTOR	1/16W 100R J
R401	VE-30012657	RESISTOR	1/16W 1K J
R402	VE-30012709	RESISTOR	1/16W 7.5K J
R403	VE-30000689	RESISTOR	1/4W 3.9K J
R406	VE-30000572	RESISTOR	1/4W 2K J
R407	VE-30000572	RESISTOR	1/4W 2K J
R408	VE-30012641	RESISTOR	1/16W 10K J
R409	VE-30012679	RESISTOR	1/16W 3.9K J
R410	VE-30000466	RESISTOR	1/4W 1K J
⚠R411	VE-30001207	FUSE RESISTOR	1/4W 10R J
R412	VE-30012641	RESISTOR	1/16W 10K J
R413	VE-30012689	RESISTOR	1/16W 39K J
R414	VE-30012679	RESISTOR	1/16W 3.9K J
R415	VE-30012643	RESISTOR	1/16W 120R J
R416	VE-30000689	RESISTOR	1/4W 3.9K J
R417	VE-30012657	RESISTOR	1/16W 1K J
R418	VE-30012709	RESISTOR	1/16W 7.5K J
R425	VE-30000452	RESISTOR	1/4W 10R J
R426	VE-30012689	RESISTOR	1/16W 39K J
R428	VE-30012650	RESISTOR	1/16W 15K J
R429	VE-30000580	RESISTOR	1/4W 22R J
R432	VE-30012641	RESISTOR	1/16W 10K J
R433	VE-30012698	RESISTOR	1/16W 5.6K J
R434	VE-30012510	RESISTOR	1/16W 100R J
R435	VE-30000580	RESISTOR	1/4W 22R J
R438	VE-30012641	RESISTOR	1/16W 10K J
R439	VE-30012641	RESISTOR	1/16W 10K J
R440	VE-30012659	RESISTOR	1/16W 2.2K J
R441	VE-30012510	RESISTOR	1/16W 100R J
R608	VE-30000458	RESISTOR	1/2W 100R J
R610	VE-30000459	RESISTOR	1/4W 100R J
R611	VE-30012689	RESISTOR	1/16W 39K J
R612	VE-30007200	RESISTOR	1/4W 10K F
⚠R613	VE-30001244	FUSE RESISTOR	1/2W 0.47R J
R614	VE-30012641	RESISTOR	1/16W 10K J
R617	VE-30012510	RESISTOR	1/16W 100R J
R618	VE-30018904	RESISTOR	5W 4.7K J
R620	VE-30001082	RESISTOR	1/2W 1K J
R621	VE-30000459	RESISTOR	1/4W 100R J
R622	VE-30012683	RESISTOR	1/16W 330K J
R623	VE-30000459	RESISTOR	1/4W 100R J
R624	VE-30000590	RESISTOR	1/4W 2.2K J
R625	VE-30000470	RESISTOR	1/2W 10K J
R626	VE-30000590	RESISTOR	1/4W 2.2K J
⚠R627	VE-30001244	FUSE RESISTOR	1/2W 0.47R J
R628	VE-30012696	RESISTOR	1/16W 47K J
⚠R629	VE-30002828	FUSE RESISTOR	1W 0.75R J
⚠R630	VE-30001245	FUSE RESISTOR	1/4W 0.47R J
⚠R631	VE-30001245	FUSE RESISTOR	1/4W 0.47R J
R632	VE-30015578	RESISTOR	1/16W 2.2R J
R633	VE-30001110	RESISTOR	1W 1.5R J
R634	VE-30000466	RESISTOR	1/4W 1K J
R635	VE-30000628	RESISTOR	1/4W 2.7K J
R636	VE-30001122	RESISTOR	1W 220R J

⚠Ref No.	Part No.	Part Name	Description Local
R637	VE-30012657	RESISTOR	1/16W 1K J
R638	VE-30014420	RESISTOR	1/16W 10K F
R639	VE-30000977	RESISTOR	1/4W 39K F
R640	VE-30012705	RESISTOR	1/16W 6.8K J
R641	VE-30000848	RESISTOR	1/4W 1K F
R642	VE-30000723	RESISTOR	1/4W 47K J
⚠R643	VE-30001246	RESISTOR FUSE	1W 0.47R J
R644	VE-30044855	RESISTOR	1/4W 8.2K F
R645	VE-30015227	RESISTOR	1/10W 1.2K F
R646	VE-30012707	RESISTOR	1/16W 680R J
R647	VE-30012659	RESISTOR	1/16W 2.2K J
R648	VE-30010167	RESISTOR	1/10W 56R J
R649	VE-30012659	RESISTOR	1/16W 2.2K J
R650	VE-30012662	RESISTOR	1/16W 2.7K J
R651	VE-30012692	RESISTOR	1/16W 4.7K J
R652	VE-30001137	RESISTOR	1W 270R J
R653	VE-30000480	RESISTOR	1/10W 100K J
⚠R800	VE-30018085	CAPACITOR VAR	510V K
R801	VE-30000718	RESISTOR	1/4W 4.7K J
⚠R802	VE-30018085	CAPACITOR VAR	510V K
R806	VE-30000594	RESISTOR	1/4W 22K J
R809	VE-30012657	RESISTOR	1/16W 1K J
R810	VE-30007784	RESISTOR	5W 33K J
R811	VE-30000683	RESISTOR	1/4W 390R J
R812	VE-30000452	RESISTOR	1/4W 10R J
R813	VE-30012692	RESISTOR	1/16W 4.7K J
R815	VE-30001174	RESISTOR	2W 0.47R J
R816	VE-30001159	RESISTOR	1W 0.33R J
⚠R817	VE-30001257	RESISTOR	1/2W 4.7M J
R818	VE-30012702	RESISTOR	1/16W 560R J
R820	VE-30014022	RESISTOR	1/16W 47R J
R825	VE-30012641	RESISTOR	1/16W 10K J
R826	VE-30014128	RESISTOR	1/16W 33R J
R827	VE-30012697	RESISTOR	1/16W 5.1K J
R828	VE-30000718	RESISTOR	1/4W 4.7K J
R829	VE-30012697	RESISTOR	1/16W 5.1K J
R830	VE-30012659	RESISTOR	1/16W 2.2K J
R831	VE-30012641	RESISTOR	1/16W 10K J
R832	VE-30012641	RESISTOR	1/16W 10K J
R833	VE-30012675	RESISTOR	1/16W 2K J
R834	VE-30000880	RESISTOR	1/4W 130K F
R835	VE-30012692	RESISTOR	1/16W 4.7K J
R836	VE-30012641	RESISTOR	1/16W 10K J
R837	VE-30001173	RESISTOR	1W 0.47R J
R838	VE-30012641	RESISTOR	1/16W 10K J
R839	VE-30000664	RESISTOR	1/10W 3.3K J
R840	VE-30000664	RESISTOR	1/10W 3.3K J
R841	VE-30012641	RESISTOR	1/16W 10K J
R842	VE-30012659	RESISTOR	1/16W 2.2K J
R843	VE-30000477	RESISTOR	1/4W 100K J
R844	VE-30012641	RESISTOR	1/16W 10K J
R846	VE-30012692	RESISTOR	1/16W 4.7K J
R847	VE-30000481	RESISTOR	1/4W 1M J
R848	VE-30000660	RESISTOR	1/4W 3.3K J
R849	VE-30012668	RESISTOR	1/16W 220R J
R850	VE-30012657	RESISTOR	1/16W 1K J
R851	VE-30000477	RESISTOR	1/4W 100K J
R852	VE-30012657	RESISTOR	1/16W 1K J
R853	VE-30012697	RESISTOR	1/16W 5.1K J
R854	VE-30012506	RESISTOR	1/16W 1.5K J
R855	VE-30028198	RESISTOR	1/16W 3K F
R856	VE-30000459	RESISTOR	1/4W 100R J
R857	VE-30000526	RESISTOR	1/4W 1.5K J
R858	VE-30012719	RESISTOR	1/16W 910R J
R859	VE-30012641	RESISTOR	1/16W 10K J
R860	VE-30012641	RESISTOR	1/16W 10K J
R861	VE-30012641	RESISTOR	1/16W 10K J
R862	VE-30012641	RESISTOR	1/16W 10K J
R863	VE-30012641	RESISTOR	1/16W 10K J
R864	VE-30000787	RESISTOR	1/10W 680K J
R865	VE-30000787	RESISTOR	1/10W 680K J
R866	VE-30000787	RESISTOR	1/10W 680K J
R867	VE-30003638	RESISTOR	1W 270K J
R868	VE-30000626	RESISTOR	1/10W 270R J
TR600	VE-30032669	LINE DRIVER	
⚠TR800	VE-30031845	TRF	
VR800	VE-30042657	RESISTOR ADJ	1/10W 560R VER
L100	VE-30001971	FERRITE	
L101	VE-30001971	FERRITE	
L103	VE-30001971	FERRITE	
L104	VE-30001971	FERRITE	
L105	VE-30001971	FERRITE	
L106	VE-30001971	FERRITE	
L107	VE-30001971	FERRITE	
L108	VE-30001979	FIXED COIL	
L110	VE-30001971	FERRITE	
L111	VE-30001971	FERRITE	
L113	VE-30001971	FERRITE	
L114	VE-30001971	FERRITE	

⚠Ref No.	Part No.	Part Name	Description Local
L115	VE-30001971	FERRITE	
L116	VE-30001971	FERRITE	
L117	VE-30001971	FERRITE	
L118	VE-30001971	FERRITE	
L119	VE-30001971	FERRITE	
L120	VE-30001971	FERRITE	
L121	VE-30001971	FERRITE	
L122	VE-30001971	FERRITE	
L123	VE-30001971	FERRITE	
L124	VE-30001971	FERRITE	
L125	VE-30001971	FERRITE	
L127	VE-30001971	FERRITE	
L128	VE-30001971	FERRITE	
L129	VE-30001971	FERRITE	
L130	VE-30001971	FERRITE	
L131	VE-30001971	FERRITE	
L132	VE-30001971	FERRITE	
L133	VE-30001971	FERRITE	
L134	VE-30001971	FERRITE	
L135	VE-30001971	FERRITE	
L136	VE-30001971	FERRITE	
L142	VE-30001971	FERRITE	
L143	VE-30001971	FERRITE	
L144	VE-30001971	FERRITE	
L145	VE-30001971	FERRITE	
L146	VE-30006712	FERRITE BEAD	
L400	VE-30006712	FERRITE BEAD	
L401	VE-30006712	FERRITE BEAD	
L403	VE-30029326	FIXED COIL	33uH
L404	VE-30029326	FIXED COIL	33uH
L600	VE-30001075	RESISTOR	1/2W 10R J
L601	VE-30031873	INJECTION COIL	
L602	VE-30032939	FIXED COIL	1MH
L603	VE-30002156	LINEARITY COIL	
⚠L800	VE-30018866	LINE FILTER	
L801	VE-30001992	FIXED COIL	
L803	VE-30001971	FERRITE	
L805	VE-30043207	FIXED COIL	22uH
J147	VE-30006712	FERRITE BEAD	
J153	VE-30006712	FERRITE BEAD	
J287	VE-30006712	FERRITE BEAD	
PL110	VE-30031178	DOUBLE-DECK SCART SOCKET	EXT-1/EXT-2
TU100	VE-30033888	TUNER	
X100	VE-30001741	CLYSTAL	24.576MHz
Z100	VE-30014261	SAW FILTER	
Z101	VE-30012545	SAW FILTER	

CRT SOCKET P.W. BOARD ASS'Y (VE-20247134)

⚠Ref No.	Part No.	Part Name	Description Local
IC900	VE-30041527	IC	
IC901	VE-30001318	DIODE	
IC902	VE-30001318	DIODE	
IC903	VE-30001318	DIODE	
IC904	VE-30001318	DIODE	
IC905	VE-30001284	DIODE	
Q900	VE-30001427	TRANSISTOR	
Q901	VE-30017863	TRANSISTOR	
Q905	VE-30001455	TRANSISTOR	
D902	VE-30001344	DIODE	
D903	VE-30001284	DIODE	
D904	VE-30001284	DIODE	
D905	VE-30001284	DIODE	
D906	VE-30001284	DIODE	
D907	VE-30001350	DIODE	
C900	VE-30000075	CAPACITOR	100nF 250V K
C901	VE-30000075	CAPACITOR	100nF 250V K
C902	VE-30000350	E CAPACITOR	10uF 250V M
C903	VE-30000415	E CAPACITOR	4.7uF 250V M
C904	VE-30000075	CAPACITOR	100nF 250V K
C906	VE-30000287	C CAPACITOR	10nF 50V K
C917	VE-30000072	CAPACITOR	10nF 1250V J
C920	VE-30000283	C CAPACITOR	1nF 50V K
C923	VE-30000375	E CAPACITOR	220uF 16V M
R900	VE-30000459	RESISTOR	1/4W 100R J
R901	VE-30000459	RESISTOR	1/4W 100R J
R902	VE-30000459	RESISTOR	1/4W 100R J
R903	VE-30023197	RESISTOR	1W 1.5K K
R904	VE-30023197	RESISTOR	1W 1.5K K
R905	VE-30023197	RESISTOR	1W 1.5K K

⚠Ref No.	Part No.	Part Name	Description	Local
⚠R906	VE-30001208	FUSE RESISTOR	1W 10R J	
R907	VE-30000458	RESISTOR	1/2W 100R J	
R908	VE-30000788	RESISTOR	1/4W 6.8M J	
R909	VE-30000535	RESISTOR	1/2W 150K J	
R910	VE-30000477	RESISTOR	1/4W 100K J	
R911	VE-30000477	RESISTOR	1/4W 100K J	
R912	VE-30000466	RESISTOR	1/4W 1K J	
R913	VE-30039143	RESISTOR	1/4W 100R K	
⚠R915	VE-30001247	FUSE RESISTOR	1/2W 4.7R J	
R916	VE-30000477	RESISTOR	1/4W 100K J	
R917	VE-30000622	RESISTOR	1/4W 270R J	
R918	VE-30000459	RESISTOR	1/4W 100R J	
R919	VE-30000622	RESISTOR	1/4W 270R J	
R922	VE-30000466	RESISTOR	1/4W 1K J	
R928	VE-30001138	RESISTOR	1W 2.7K J	
R934	VE-30000452	RESISTOR	1/4W 10R J	
R935	VE-30000723	RESISTOR	1/4W 47K J	
R936	VE-30000471	RESISTOR	1/4W 10K J	
R937	VE-30000554	RESISTOR	1/4W 180R J	
L1	VE-30001987	FIXED COIL		
⚠PL906	VE-30031572	CRT SOCKET		
SG900	VE-30000428	SPARK GAP		
SG901	VE-30000428	SPARK GAP		
SG902	VE-30000428	SPARK GAP		
SG903	VE-30021532	SPARK GAP		
SG904	VE-30000428	SPARK GAP		

SIDE CONTROL P.W. BOARD ASS'Y (VE-20209390)

⚠Ref No.	Part No.	Part Name	Description	Local
C101	VE-30000191	C CAPACITOR	100pF 50V J	
C103	VE-30000191	C CAPACITOR	100pF 50V J	
C104	VE-30000191	C CAPACITOR	100pF 50V J	
C105	VE-30000307	C CAPACITOR	2.2nF 50V K B	
R102	VE-30000594	RESISTOR	1/4W 22K J	
R103	VE-30000712	RESISTOR	1/4W 470R J	
R104	VE-30000594	RESISTOR	1/4W 22K J	
R106	VE-30000712	RESISTOR	1/4W 470R J	
R122	VE-30000770	RESISTOR	1/4W 680R J	
R123	VE-30000712	RESISTOR	1/4W 470R J	
R124	VE-30000622	RESISTOR	1/4W 270R J	
R125	VE-30000526	RESISTOR	1/4W 1.5K J	
R126	VE-30000689	RESISTOR	1/4W 3.9K J	
R127	VE-30000621	RESISTOR	1/2W 270R J	
R128	VE-30000621	RESISTOR	1/2W 270R J	
R129	VE-30000551	RESISTOR	1/4W 18R J	
R130	VE-30000551	RESISTOR	1/4W 18R J	
L101	VE-30001979	FIXED COIL		
JK101	VE-30031075	JACK	EXT-3 VIDEO IN	
JK102	VE-30031072	JACK	EXT-3 AUDIO IN(L)	
JK103	VE-30031131	JACK	EXT-3 AUDIO IN(R)	
JK109	VE-30020016	HEADPHONE JACK	HEADPHONE	
SW101	VE-30032684	TACT SWITCH	VOLUME -	
SW102	VE-30032684	TACT SWITCH	VOLUME +	
SW103	VE-30032684	TACT SWITCH	PROGRAM -	
SW104	VE-30032684	TACT SWITCH	PROGRAM +	
SW105	VE-30032684	TACT SWITCH	MENU	

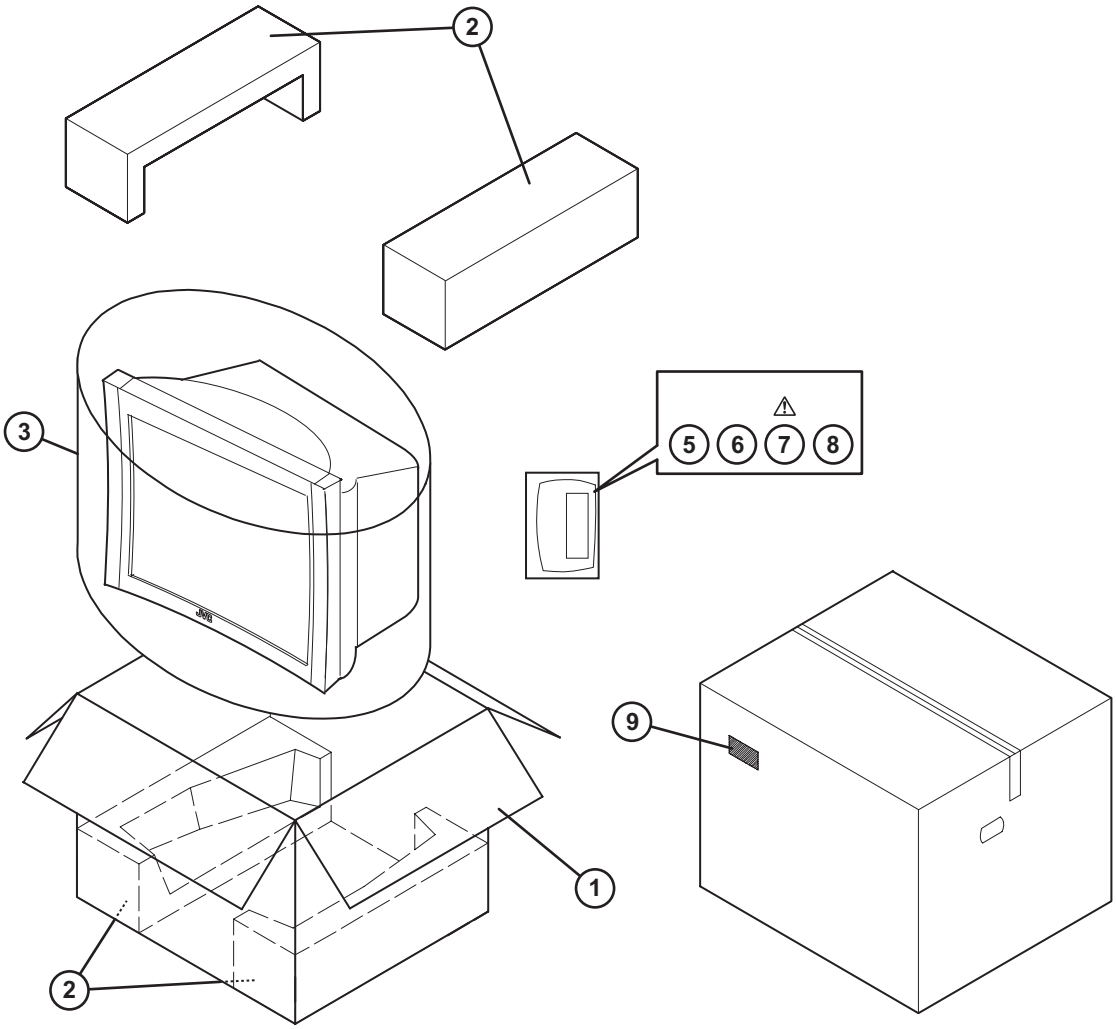
POWER SW P.W. BOARD ASS'Y (VE-20209413)

⚠Ref No.	Part No.	Part Name	Description	Local
⚠F800	VE-30031038	FUSE	2.5A 250V	
⚠SW800	VE-30022450	SWITCH		

LED P.W. BOARD ASS'Y (VE-20209387)

⚠Ref No.	Part No.	Part Name	Description	Local
MD101	VE-30031033	PREAMPLIFIER		
D100	VE-30001279	LED	RED/GREEN	
C100	VE-30000371	E CAPACITOR	22uF 50V M	

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	VE-50086737	CARTON BOX		
	2	VE-20116671	SNOW BOX ASSY	4pcs in 1set	
	3	VE-50042308	POLY BAG	1200x1050mm	
	5	VE-30017763	REMOTE CONTROL UNIT	RM-C1100	
	6	----------	BATTERY	AA/R06 (x2)	
⚠	7	VE-50085999	INST BOOK	Swedish/Norwegian/Finn/Danish	
⚠	7	VE-50086735	INST BOOK	English/French/Dutch/Spanish/German/Italian/Portuguese	
⚠	7	VE-50086736	INST BOOK	Polish/Czech/Hungarian/Bulgarian/Romanian	
	8	----------	WARRANTY CARD	VE-50086733	
	9	VE-20264952	LABEL		

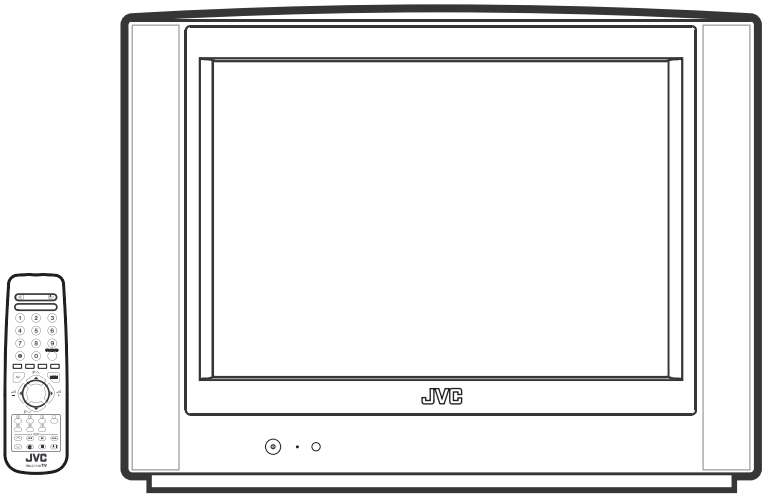
JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

AV-28KT1SUF/D

CD-ROM No.SML200607



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No.52137D
2006/7

AV-28KT1SUF/D

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

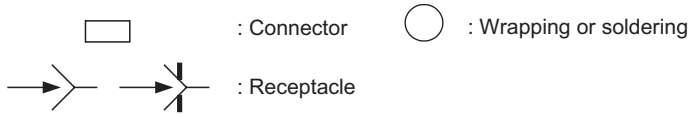
No unit	: [μH]
Others	: As specified

(4)Power Supply

∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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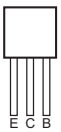
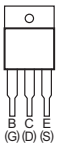
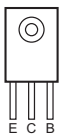
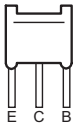
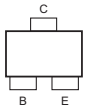
USING P.W. BOARD

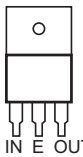
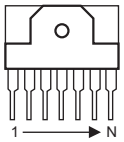
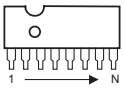
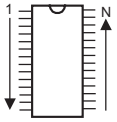
P.W.B ASS'Y name	P.W.B ASS'Y number
MAIN P.W. BOARD	VE-20265027
SIDE CONTROL P.W. BOARD	VE-20209390
LED P.W. BOARD	VE-20209387
POWER SW P.W. BOARD	VE-20209413
CRT SOCKET P.W. BOARD	VE-20247134

SEMICONDUCTOR SHAPES

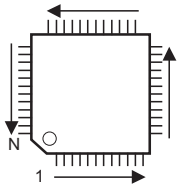
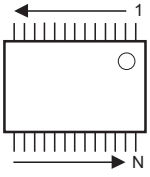
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

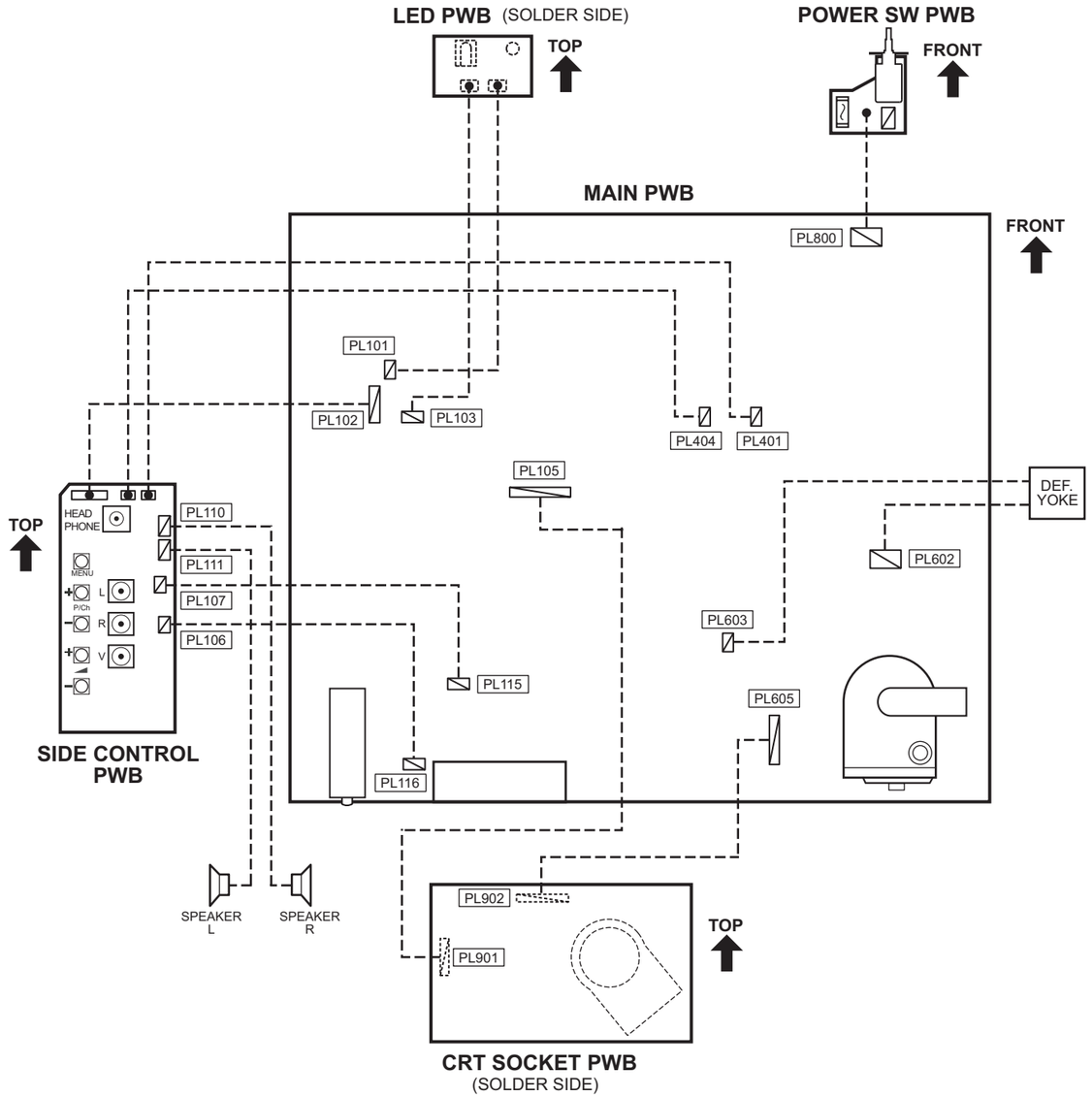
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

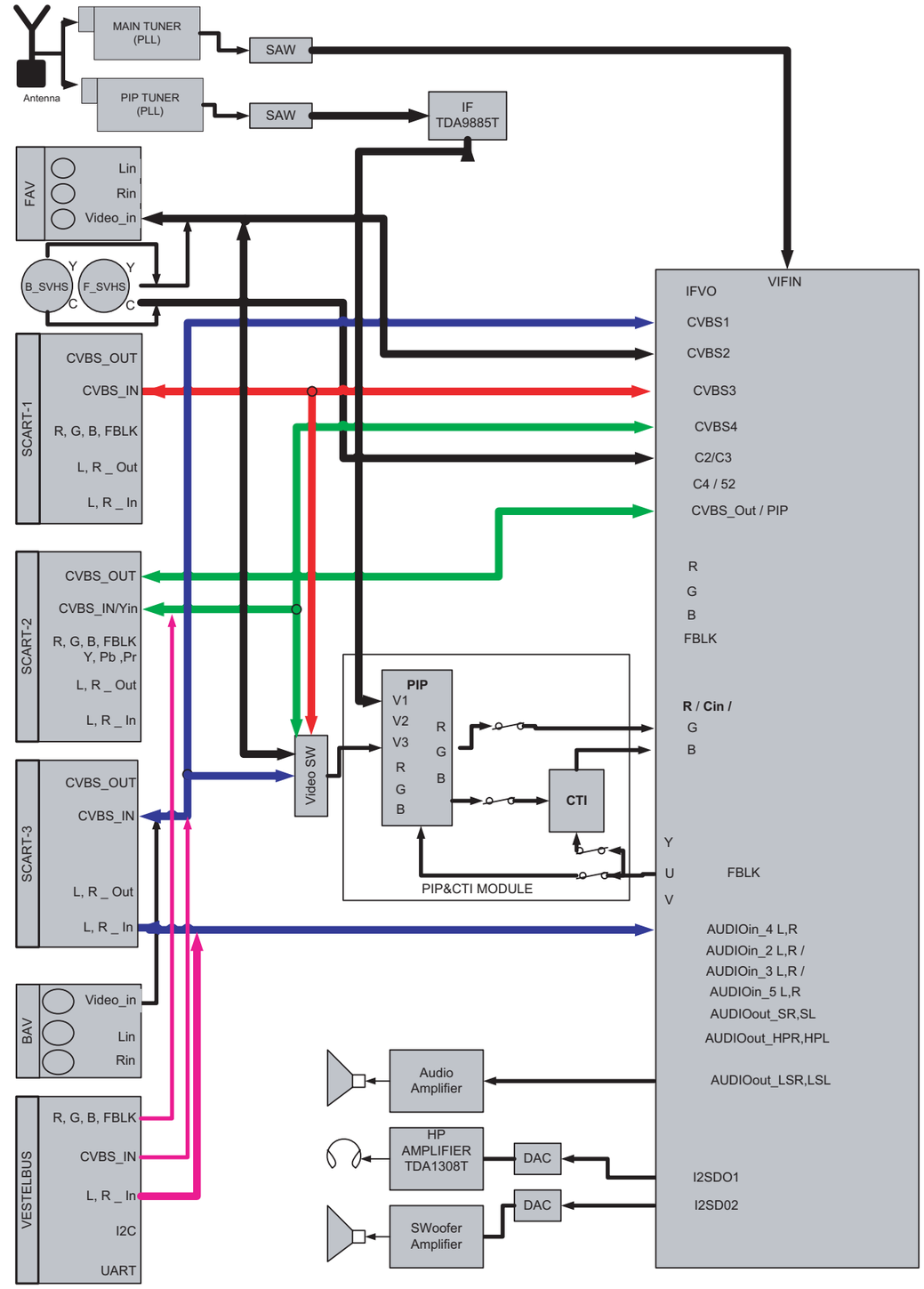
CHIP IC

TOP VIEW		
		

WIRING DIAGRAM

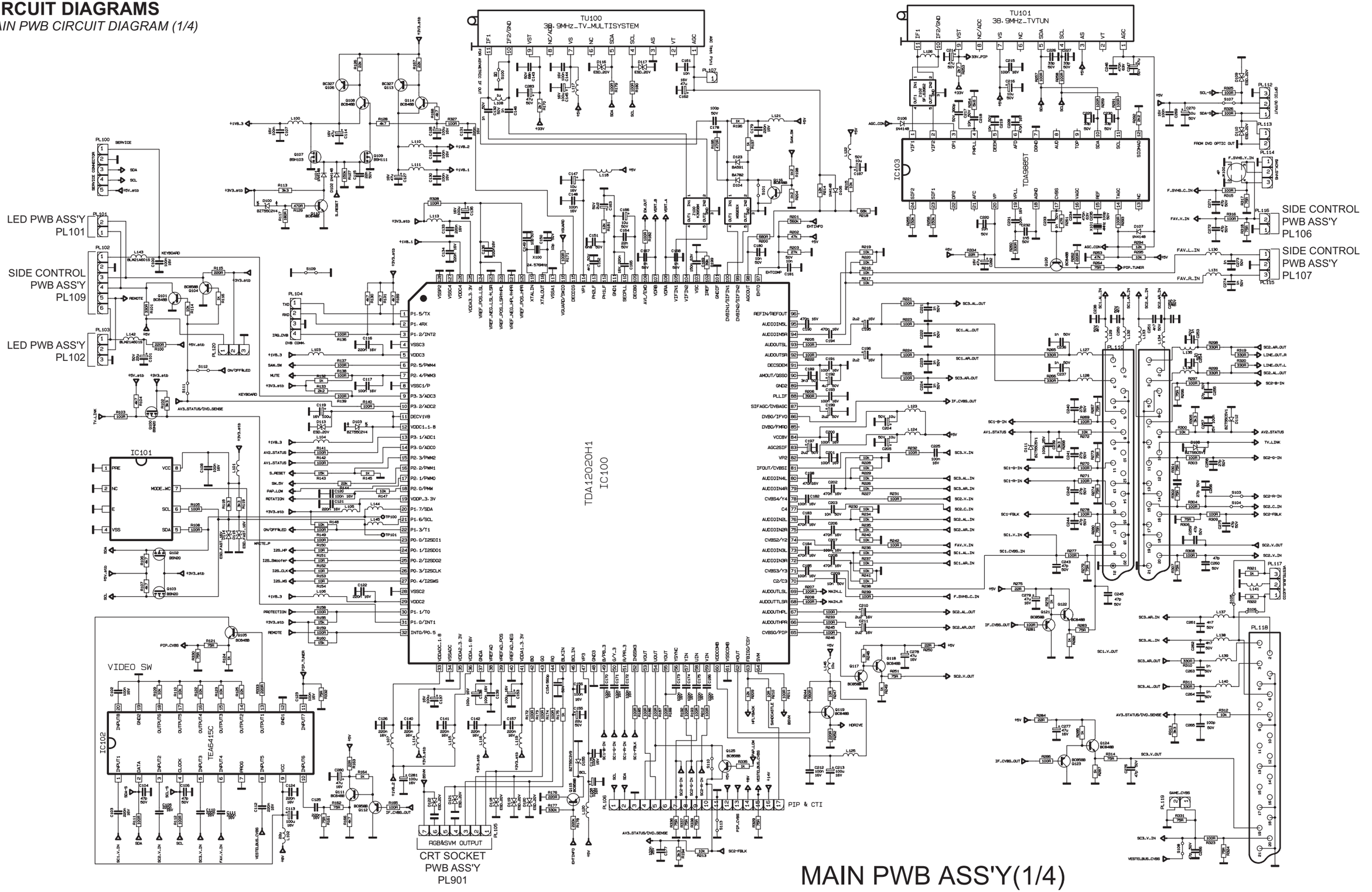


BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/4)



MAIN PWB ASS'Y(1/4)

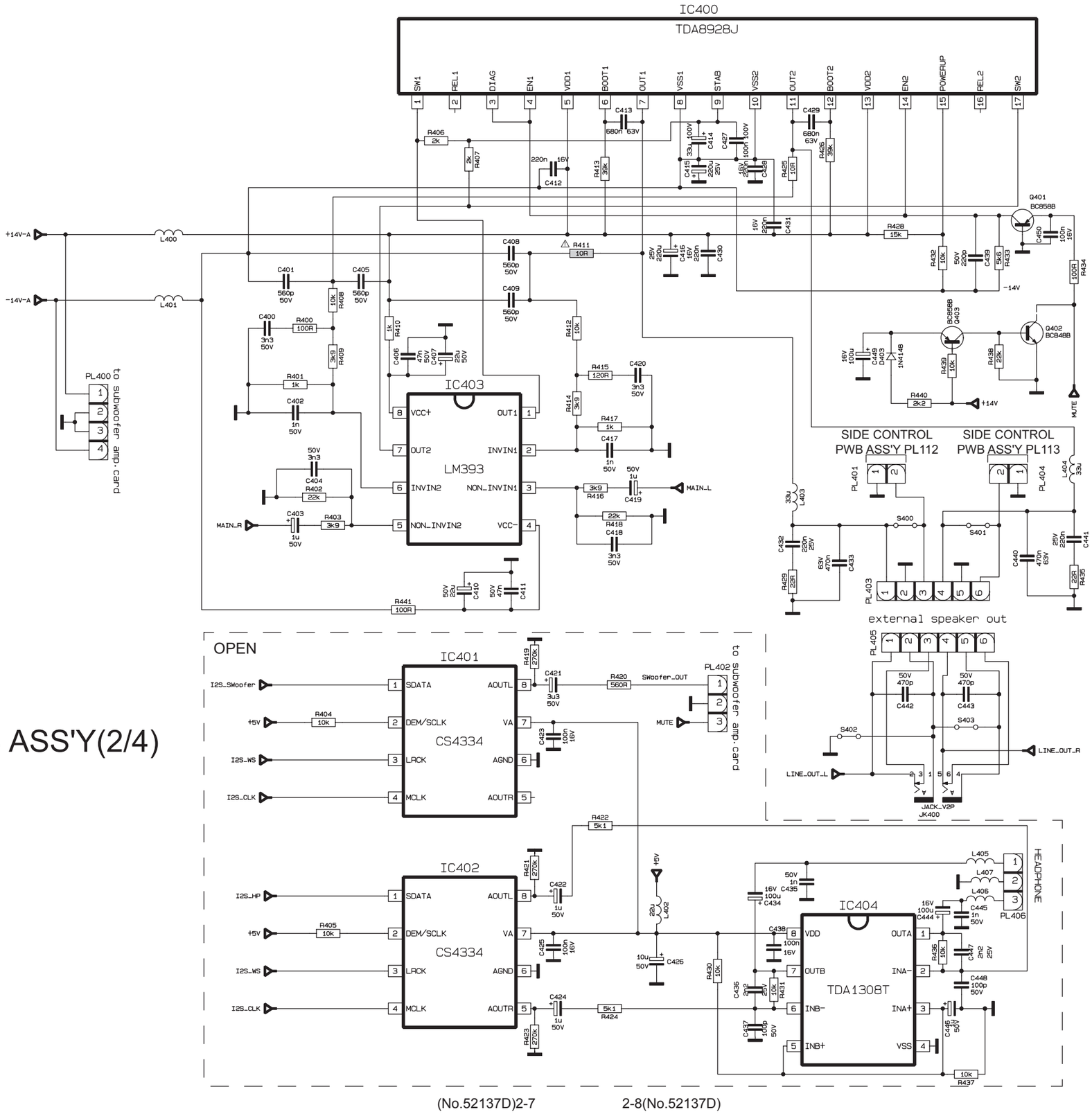
VE-20265027

c11ak49-7_0017_0413_4/4_0.0

MAIN PWB CIRCUIT DIAGRAM (2/4)

MAIN PWB ASS'Y(2/4)

VE-20265027



(No.52137D)2-7 2-8(No.52137D)

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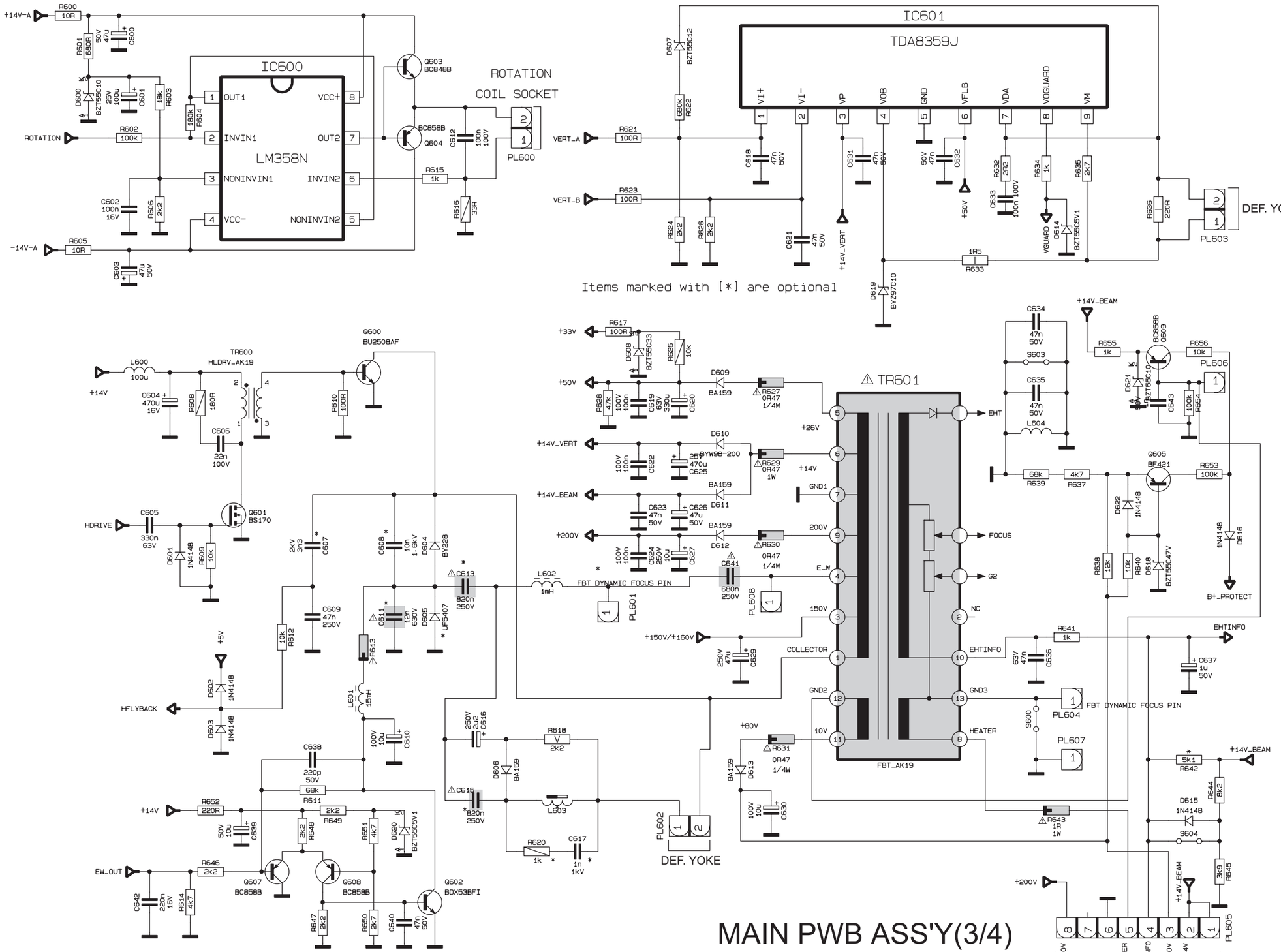
MAIN PWB CIRCUIT DIAGRAM (3/4)



MAIN PWB ASS'Y(3/4)
VE-20265027

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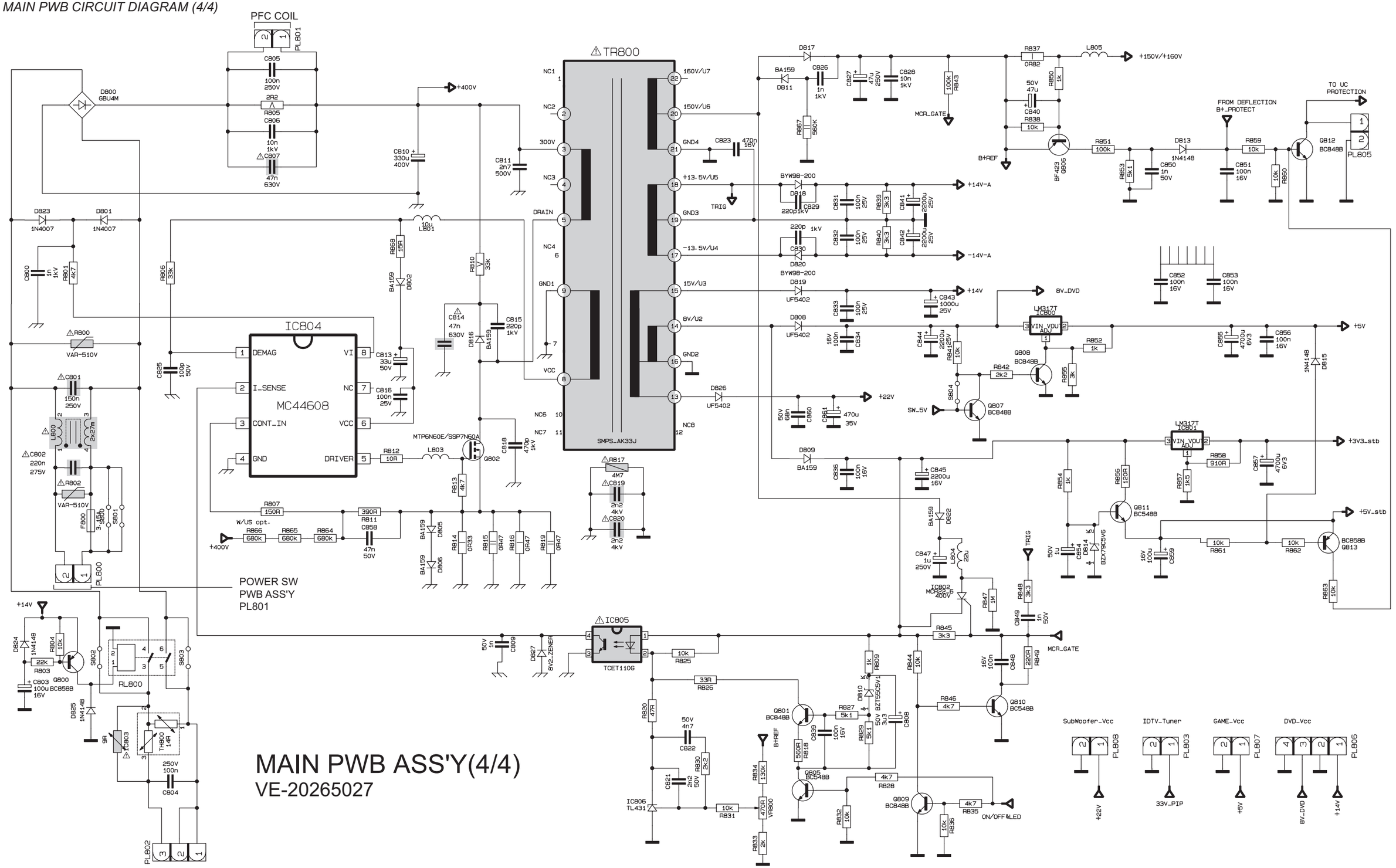
MAIN PWB CIRCUIT DIAGRAM (4/4)



MAIN PWB ASS'Y(4/4)

VE-20265027

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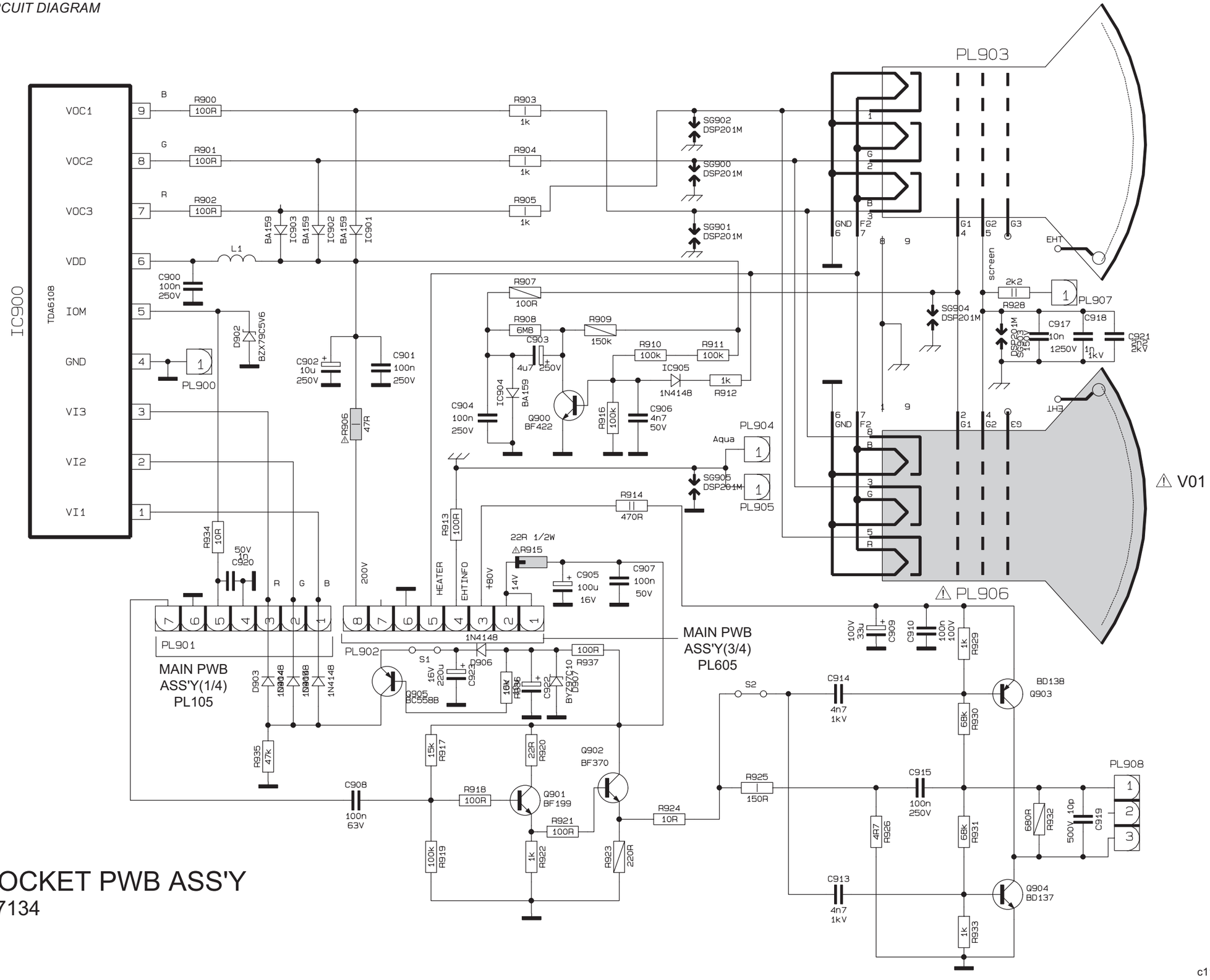
CRT SOCKET PWB CIRCUIT DIAGRAM



CRT SOCKET PWB ASS'Y

VE-20247134

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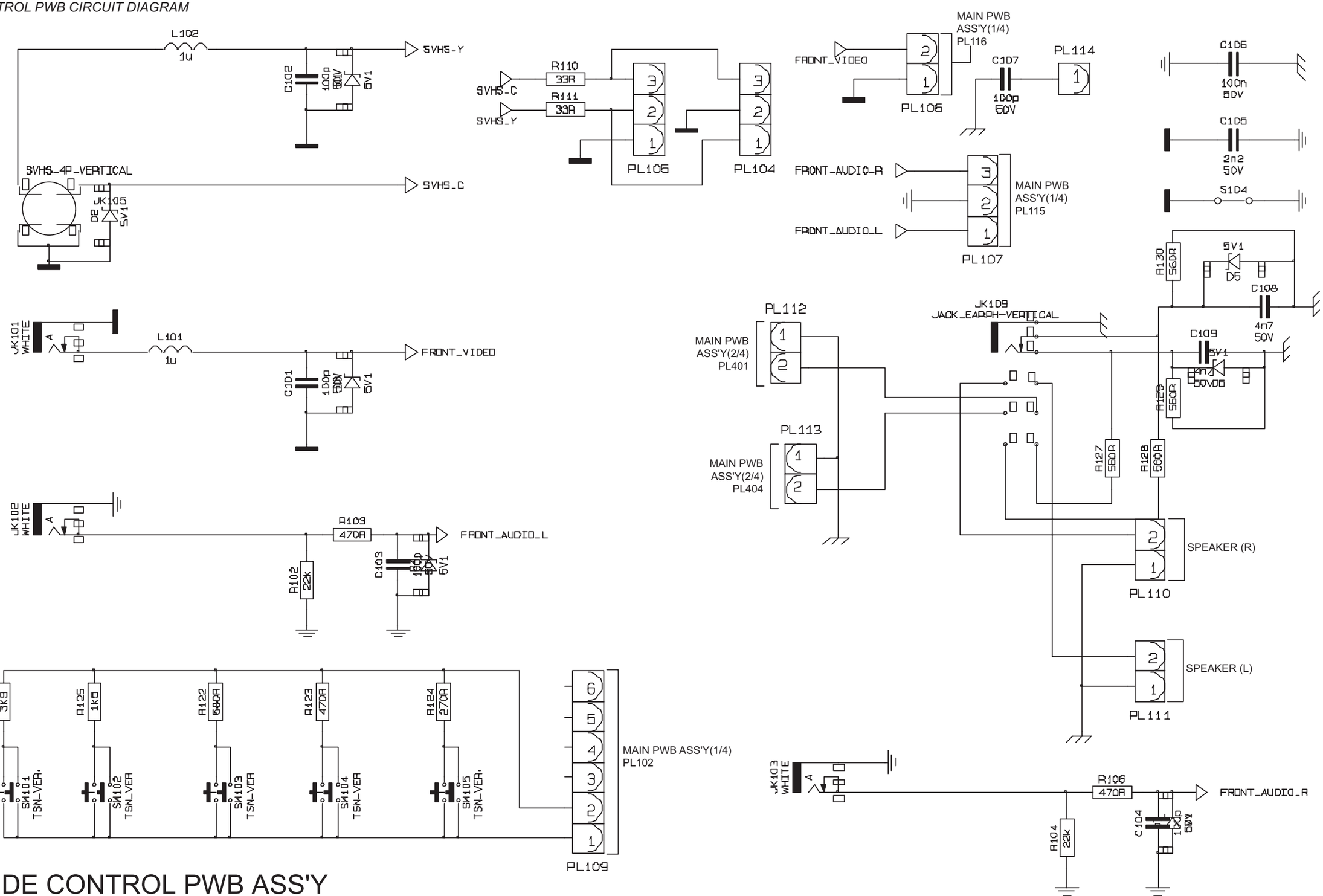
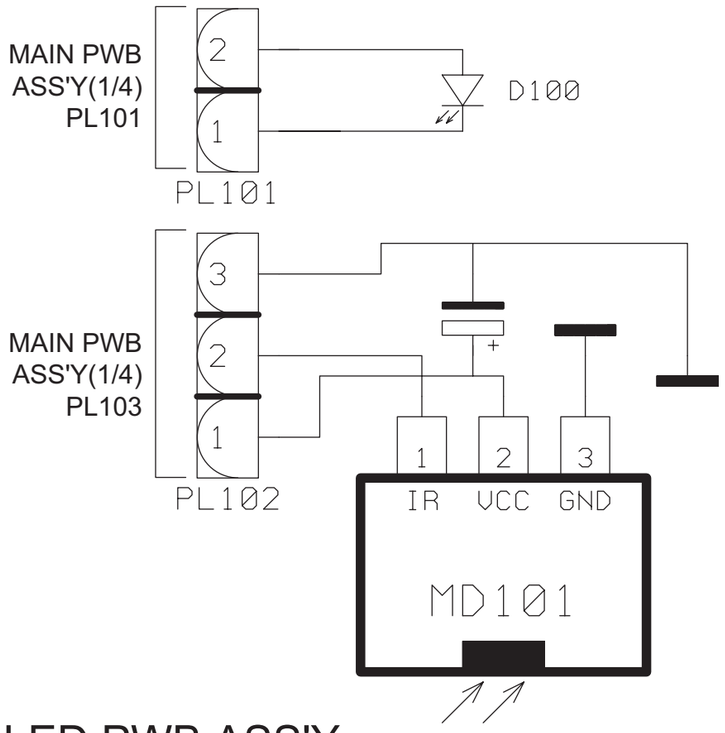
SIDE CONTROL PWB CIRCUIT DIAGRAM

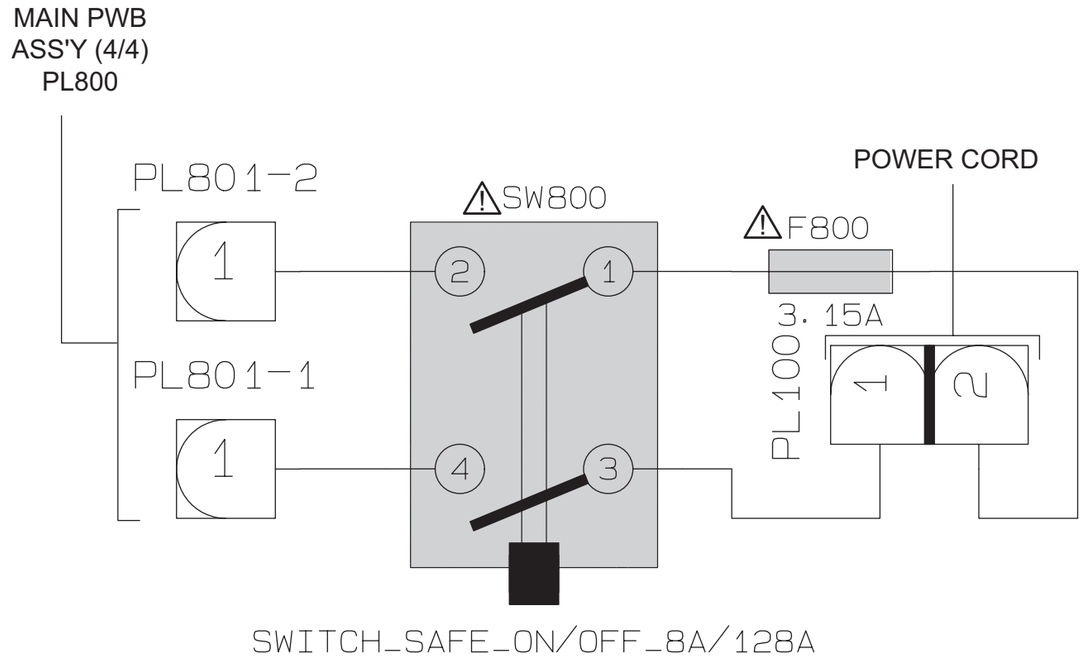


SIDE CONTROL PWB ASS'Y

VE-20209390



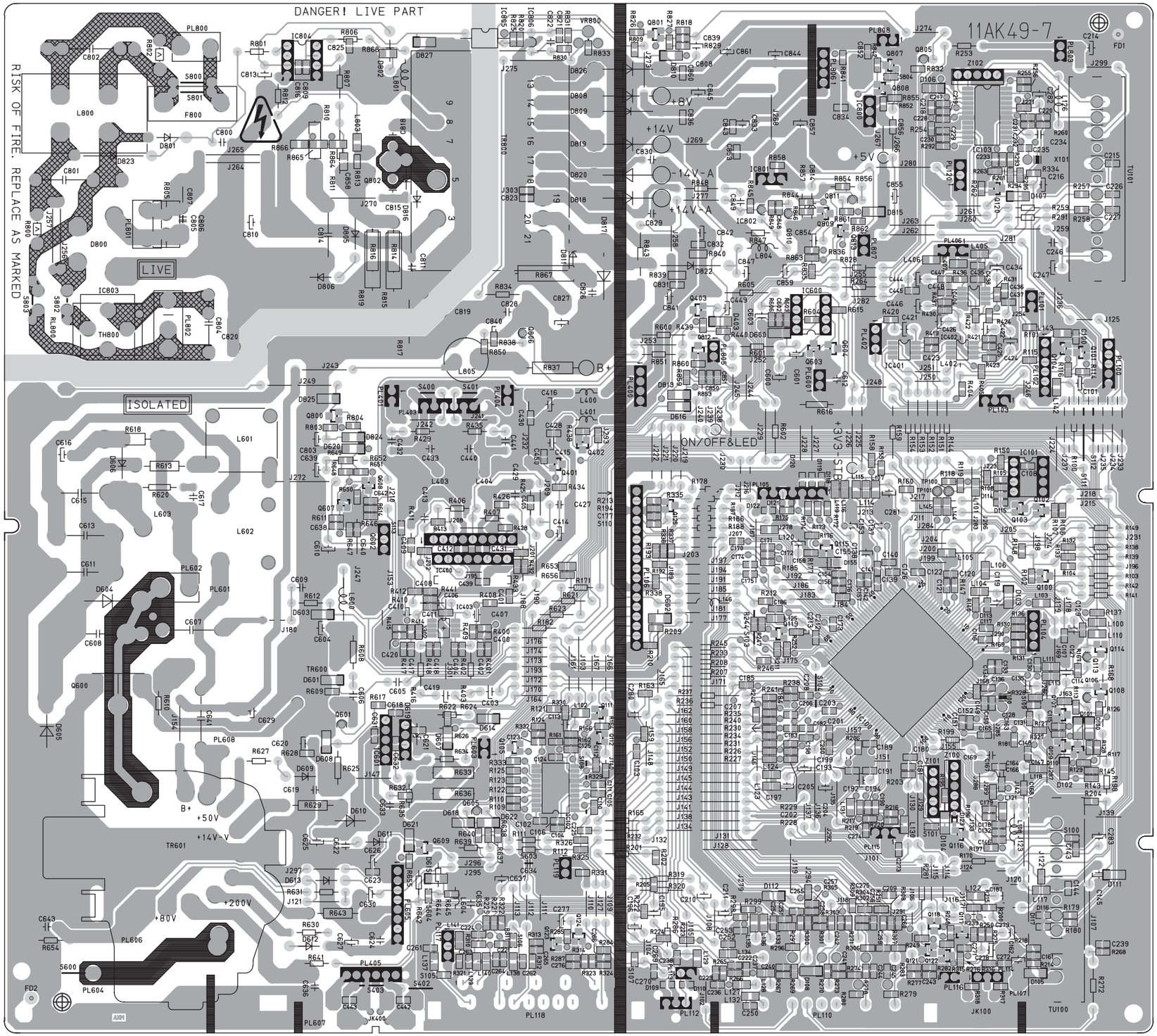
LED PWB ASS'Y
VE-20209387



POWER SW PWB ASS'Y
VE-20209413

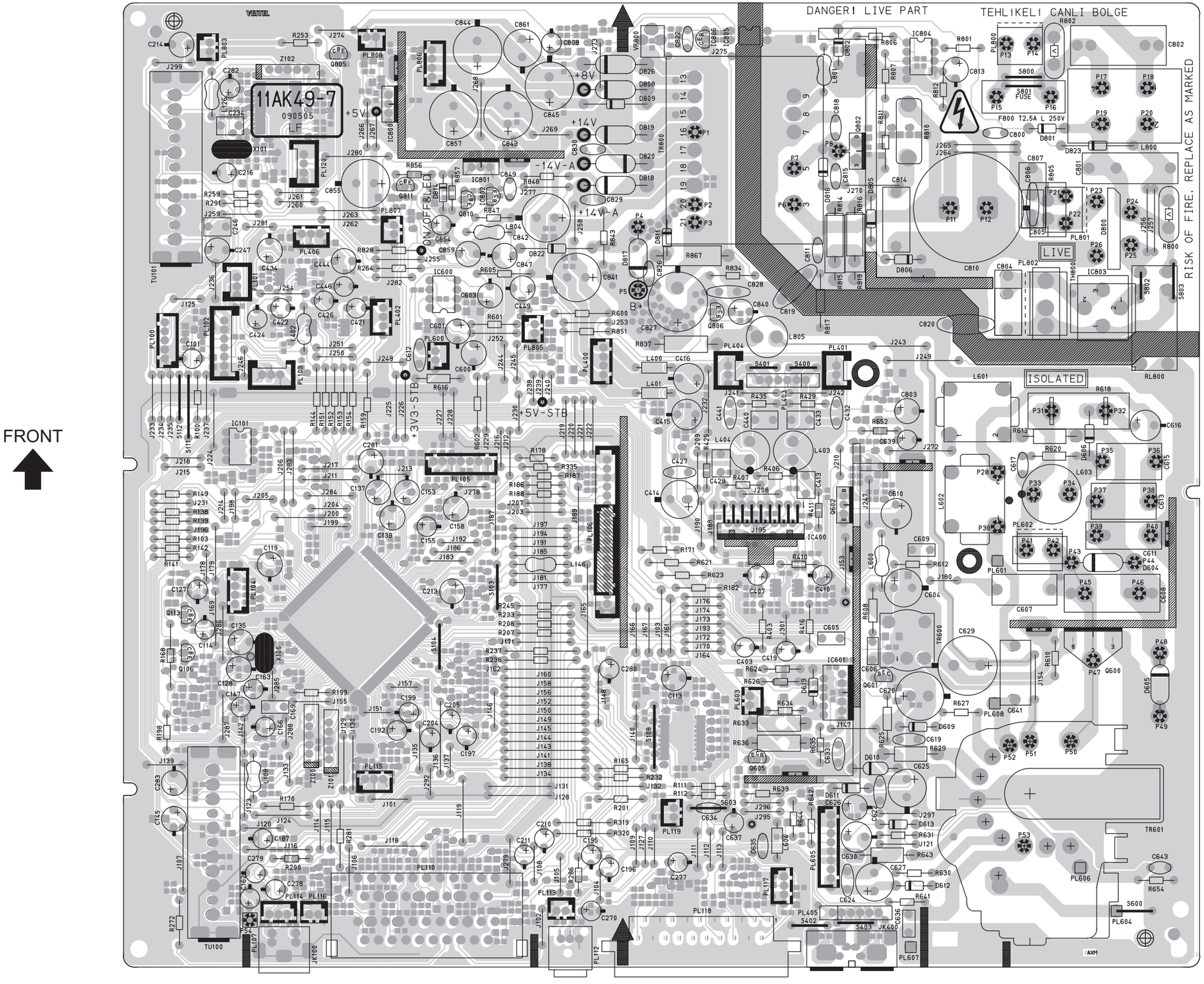
PATTERN DIAGRAMS

MAIN PWB PATTERN [SOLDER SIDE]

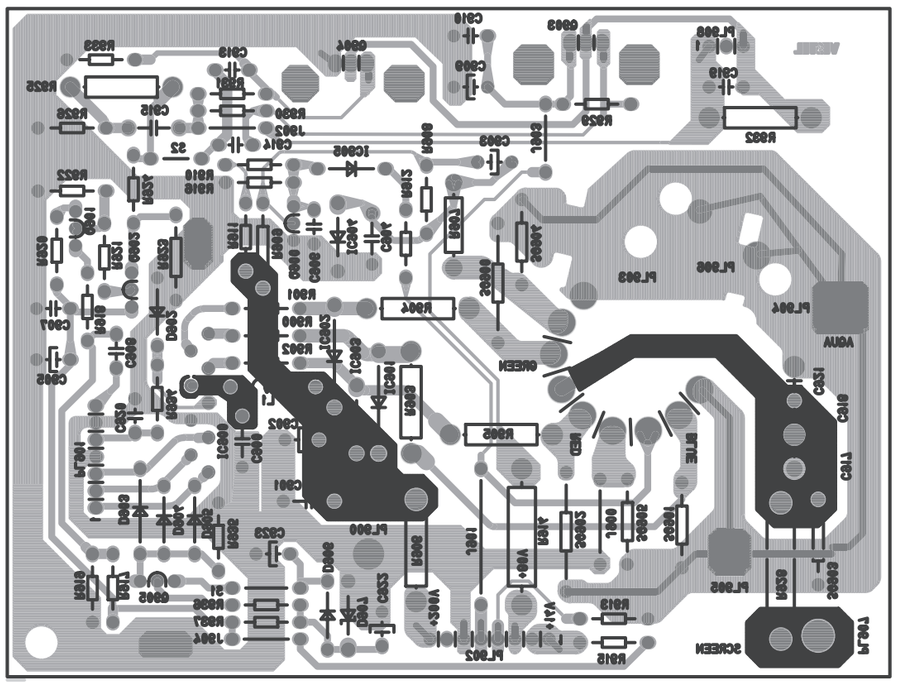


MAIN PWB PATTERN [PARTS SIDE]

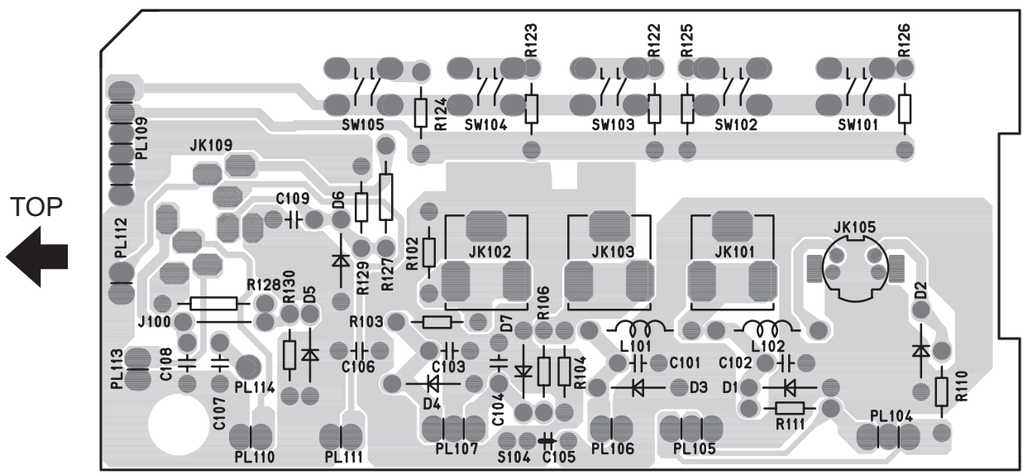
FRONT



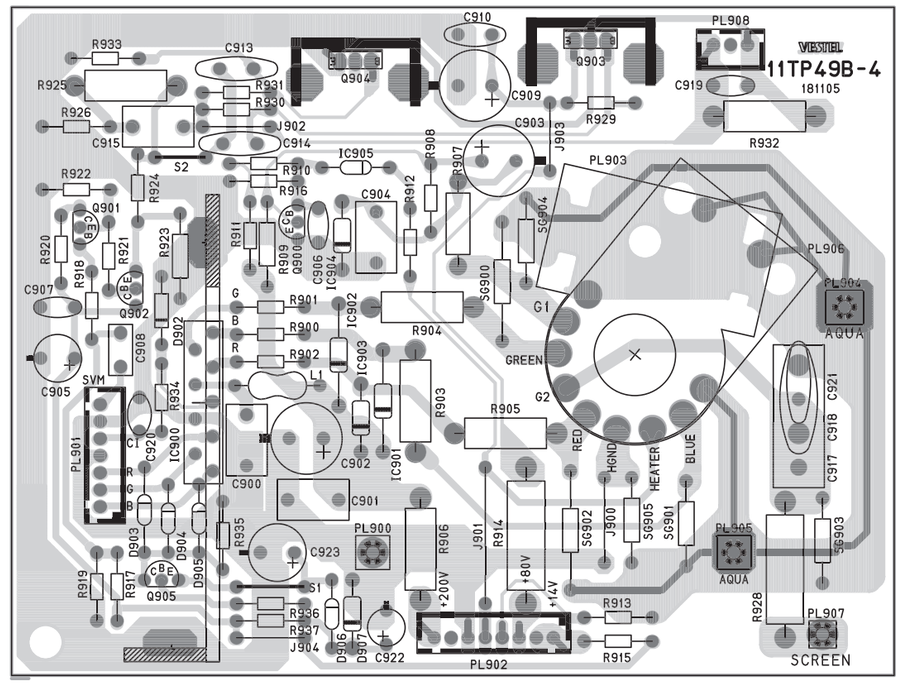
CRT SOCKET PWB PATTERN [SOLDER SIDE]



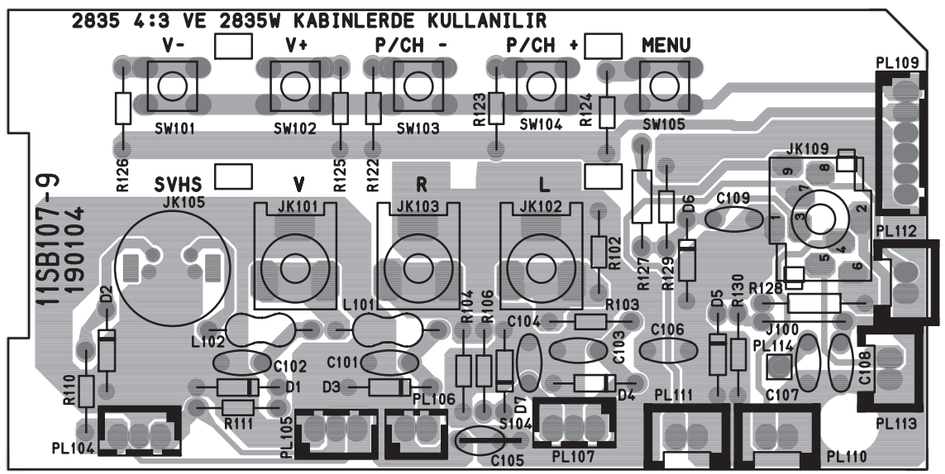
SIDE CONTROL PWB PATTERN [SOLDER SIDE]



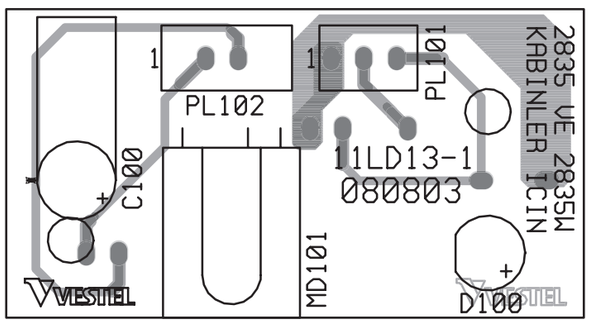
CRT SOCKET PWB PATTERN [PARTS SIDE]



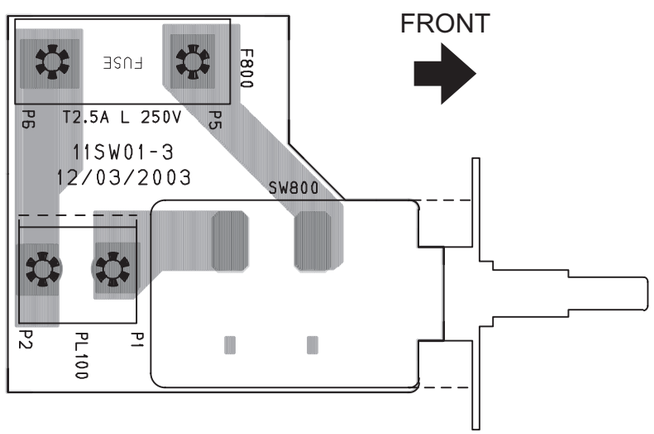
SIDE CONTROL PWB PATTERN [PARTS SIDE]



LED PWB PATTERN



POWER SW PWB PATTERN



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